

Mothers' Depression and Parenting Efficacy among Economically  
Disadvantaged Korean Women: Test of a Mediation Model

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Submitted to the Graduate Faculty of  
School of Social Work in partial fulfillment  
of the requirements for the degree of  
Doctor of Philosophy

UNIVERSITY OF PITTSBURGH

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# **Mothers' Depression and Parenting Efficacy among Economically Disadvantaged**

## **Korean Women: Test of a Mediation Model**

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This study examined the relationships between life stressors (acute stress, chronic stress, and parental stress) and maternal depression as they relate to parenting self-efficacy among economically disadvantaged Korean women. The present investigation was based on the premise that parenting behavior develops as the result of multiple factors, including stressors, which combine to produce a final effect. The family stress model was expanded to include an examination of socio-environmental stresses as factors that might impair parenting through negative effects on maternal psychological functioning. In addition, parental stress was added as a stressor contributing to parenting quality. The study also investigated the effects of maternal depression on parenting efficacy as a predictor and mediator.

The study aimed to assess: (a) the relationship between mothers' stressors (acute, chronic, and parental stress) and parenting self-efficacy while controlling for income, mother's education, mother's job status and total support; (b) the relationships between mothers' stressors and maternal depression; (c) the relationship between maternal depression and parenting self-efficacy; and (d) a mediating effect of maternal depression on the relationship between mothers' stressors and parenting self-efficacy.

The study design was cross-sectional, and employed a convenience sampling method. The study participants were Korean mothers of children ages 3-5 in 12 daycare centers in Seoul, Korea. A total of 429 individuals participated in this study and data on 408 cases were analyzed.

The results showed that socio-environmental stress and parental stress could result in depression and a low level of parenting self-efficacy among Korean mothers. Although income was an important variable, chronic stress and parental stress were found to be even more influential variables on maternal depression and parenting self-efficacy. This study found that the lower the income, the more vulnerable the mother was to stress, and it also showed that chronic stressors had more influence on maternal depression for low-income mothers than for middle-class mothers. This study showed that the mental health of low-income mothers mediated the relationship between chronic stress and parenting. To maximize effective parenting under high-stress conditions, mothers need to first protect their own psychological well-being against environmental contexts. For the welfare of the children, attention must be shown to the mental health of mothers and their welfare. Policy development and management for these issues are desperately needed in Korea.

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## ACKNOWLEDGEMENTS

I want to first thank my Committee Co-Chairs, Esther Sales, Ph.D., and Gary Koeske, Ph.D. I particularly want to thank Dr. Sales for her encouragement, steady support and guidance throughout the process. Her support and mentorship made the dissertation process go smoothly and kept me on track—for which I will always be grateful. Special thanks also go to Dr. Koeske, Ph.D. for being so responsive at each step along the way. His guidance and support have been instrumental to my completion of this degree. He has contributed to my growth both academically and professionally. I also want to thank Nancy Grote, Ph.D. for her thorough review and insightful comments that helped me clarify my thoughts and improve the quality of my dissertation. My gratitude also goes to Randi Koeske, Ph.D. for her mentorship and thoughtfulness throughout the process.

To my family and friends who supported me through the many years of my education, I appreciate every one of you and thank you for your encouragement and support. Thanks to my father, Young-Mo Kim, who taught me to work hard to attain my goals, and to my mother, Kwi-Hae Kim, who always provided a calm source of comfort and support. My sisters, Jin-Hwa and Jin-Young, have been a wonderful support. To my husband, Yong-Tae Kim, thank you for being an inspiration for me and for taking the time to support my achievements. Thanks to my son, the joy of my life, Ho-Young Kim, for his patience and goodness.

Finally, I am grateful to the School of Social Work along with the many professors, fellow students, and friends who have been so encouraging. I also appreciate Shirley Beck Johnson for the assistance she has given me in this work.

## **1.0 INTRODUCTION**

### **1.1 STATEMENT OF THE PROBLEM**

In 1996 and 1997, the poverty rate in Korea was 3.6% and 4.9%, respectively. Subsequently, the economic crisis in 1998 caused the poverty rate to reach 10.9%. After 1998, the poverty rate declined, and then elevated again around 2003 (Kim, 2006). The economic crisis in 1998 left its mark by drastically increasing the number of jobless people in Korea. Unemployment has sharply reduced family incomes, causing poverty-stricken families to fall apart. Some underclass families experienced negative family outcomes due to the hardship of economic pressure. Social indicators have demonstrated an increase in family dysfunction and unfavorable child outcomes in Korea. According to police statistics, 12 cases of parental killings and family murder-suicides were reported just in the second half of 2003, claiming the lives of 39 people, including 23 children (Choe, 2003). These homicide cases in 2003 left people asking why parents would take the lives of their own children (Choe, 2003).

*In broad daylight around 4:10 p.m., the 24-year-old father from Incheon hurled his daughter and son, ages 6 and 5, respectively, off a bridge into the Han River. The children were found dead yesterday.*

*In early August, a young mother leapt to her death after killing her two children at their apartment in Ulsan. The woman was experiencing great financial difficulties after her husband lost 170 million won (\$140,000) trading stocks.*

*On July 17, an impoverished young mother took her infant son with her as she plunged to the ground after hurling her two preadolescent children from the same high-rise apartment building in Incheon.*

*Just two weeks ago, a family of four died together in Siheung, southwest of Seoul when the parents who were destitute following huge gambling losses fed poison to their son and daughter and finally themselves.*

*On Dec. 6, a 35-year-old mother in Jingwanoe-dong, western Seoul, stabbed her preteen elementary school children, then set herself on fire in desperation before being saved.*

*A housewife in her 30s strangled her two children and abandoned their bodies on a nearby mountain in Suwon in October. The mother was mentally unstable due to family disputes and a ruptured marriage, police said.*

These extreme cases tend to stem from family dysfunction. Psychiatrists say these actions stem from a misguided perception of family. Instead of viewing children as individuals capable of making their own decisions, parents tend to consider them as belongings or release valves for their feelings of stress and anger.

Statistics compiled by the Health and Welfare Ministry showed that in 1998, 9,292 children under 18 were either placed into state care or deserted by parents grappling with family problems related to the economic crisis. The figure marked a 38% increase from the previous year's 6,734. Previously, the cause for child abandonment was usually the death of the parents. But since the economic crisis, children have been left on their own because of divorce and family breakups.

In addition, when the fact is taken into consideration that over 80% of people committing suicide are suffering from depression, the above cases clearly show the dangers of depression. Depression has long been known to be a common mental disease, but the results of statistical observation that there is a clear increase in suicide rate that coincides with the recent economic recession suggest that depression is not only caused by biological-psychological factors but also by socio-economic factors.

It has long been appreciated that poverty is a major risk factor for depression among women, and the stress processes that account for this risk are increasingly well understood. Adults in poverty are twice as likely as nonpoor adults to experience a new episode of major

depression (Bruce, Takeuchi, & Leaf, 1991), and financial hardship almost doubles women's risk for the onset of depression (Brown & Moran, 1997). One study of current and recent welfare recipients found that more than one-quarter of the mothers met diagnostic criteria for major depression (Siefert, Bowman, Heflin, Danziger, & Williams, 2000). Rates of major depression in homeless and housed low-income mothers are about twice as high as in the general population of women (Bassuk, Buckner, Perloff, & Bassuk, 1998).

Investigations show high levels of depressive symptoms to be common among those with low incomes, especially mothers with young children (Bogard, Trillo, Schwartz, & Gerstel, 2001; Brown, Bhrolchain, & Harris, 1975; Dressler, 1985; Gyamfi, Brooks-Gunn, & Jackson, 2001; Pearlin & Johnson, 1977). As Belle and Doucet (2003) have pointed out, poor women experience more frequent, more threatening, and more uncontrollable stressful life events than do the general population.

There is evidence that both paternal and maternal mental health can impact children, although not necessarily to the same extent. Maternal mental health is especially important when caring for children under the age of 16. More than two decades of research have been devoted to understanding the deleterious effects of maternal depression on children (Cummings & Davies, 1994; Downey & Coyne, 1990). The literature on depression provides considerable evidence that depressed mothers show significant impairments in their parenting abilities and that these impairments are often manifested in neglect, rejection, or hostility toward their children. Further evidence that some parents have difficulty coping with parenting stress is found in rates of child abandonment and parental indifference in parent-child interactions (McCubbin & Figley, 1983).

A few recent studies support the relative importance of parenting efficacy. Parenting efficacy may also be a strong correlate of parenting and child outcome in less advantaged

families. Theoretically, parenting efficacy may make more of a difference among children who experience risks or disadvantages. Strong parenting efficacy, or the associated responsive parenting, may then act as a protective factor against risk for some children. Therefore, I am using parenting self-efficacy to measure potential quality of parenting.

In Korean studies on women in poverty, powerlessness due to threatening social contexts and problematic roles (Jang et al., 1987) along with suffering from negative mental health such as depression and frustration (Ahn, 1991) are reported. According to a Korean government survey (Ministry of Health and Welfare, 1990), single mothers of low-income families who function as heads of households had higher occurrences of psychological disorder than physical disorder. A recent survey of welfare recipients (KWAU, 2002), including women participants in a Korean “self-sufficiency program” (like a US Workfare program), found that low-income mothers were isolated from social networks and network members. These results are consistent with earlier research coming from the United States (Belle, 1982; Wolf, 1987).

However, in Korea, therapeutic services that can contribute to the mental health of women in poverty are limited and the availability of social work services is insufficient. Four categories of services are offered by the social welfare service to poor women. These include: financial support, vocational training and guidance, training, and counseling services. Financial support is given for medical costs, child-education fees, childcare costs, and a rehabilitation fund. However, these supports do not give substantial aid to the low-income family. Vocational training and guidance services are offered at public organizations (such as a social welfare center) and most social welfare centers are located in low-income communities. Counseling services in public organizations are dependent on volunteers, so the quality and continuity of services are often problematic. Some social welfare centers implement counseling services in



regard to employment, divorce, or domestic violence, but few women use these services. Currently in Korea, a program of service to improve poor women's negative mental health status is rare. However, depression is on the rise among Koreans. Korean women may be especially prone to depression because in Korean culture, it is generally shameful for people to show their emotions. Adding to that, it seems that the care-giving role is the first duty for women as influenced by the conventional notion of patriarchy in Korean society. To protect economically disadvantaged women's psychological well-being and to ensure competent parental functioning, we should intervene at the points of stress that are known to contribute to parental dysfunction.

## **1.2 KOREAN WOMEN AND FAMILY LIFE**

### **1.2.1 Korean Family Composition, Family Formation, and Family Life**

The average number of people per family in Korea in the year 2005 was 2.9 (Korea National Statistical Office, 2006a). Despite a decrease in marriages every year, divorce has increased dramatically, from 65,015 cases in 1994, to 119,982 cases in 2000, and 139,365 cases in 2004. Personality differences were the most frequently stated reason for divorce at 49.2%, followed by economic problems at 14.7%, disagreements between family members at 9.5%, wrongdoing by spouse at 7.6%, and mental and physical abuse at 4.4% (Korea National Statistical Office, 2006a). Of all reasons for divorce, economic reasons have been increasing most rapidly, steadily increasing every year since 1998, one year after Korea received aid from the International Monetary Fund.

According to the Korea National Statistical Office (2006a), 6.6% of Korean women work as unpaid family workers compared with 4.6% in Japan, 0.5% in Finland, and 0.3% in Norway. The gender development index of 140 countries ranks Korea as 25<sup>th</sup> and the US as 8<sup>th</sup> (UNDP, 2006). In addition, Korea ranks 53<sup>th</sup> and the US ranks 12<sup>th</sup> in gender empowerment among 80 countries (UNDP, 2006).

According to the survey of time use by the Korean National Statistical Office in 2004 (Korea National Statistical Office, 1999, 2005), the average amount of time married women over 20 years of age spent doing housework decreased 1 hour and 12 minutes, compared to the amount of time reported in 1999. However, married women still spent more time doing housework than men 3 hours and 18 minutes for women compared to a daily average of 26 minutes for men. Not only did married women spend a greater amount of time performing housework than their spouses, but they also believed that housework was their responsibility. Specifically, when attitudes towards dividing housework were examined in 2002, 70.9% of men and 61.3% of women agreed with the statement “women should assume the whole responsibility or do most of the work,” whereas only 2.8% of men and 4.0% of women agreed with the statement “men should assume the whole responsibility or do most of the work” (Korea National Statistical Office, 2003).

Although the status of women in Korea appears to be increasing, there does not seem to be an inverse relationship with sexual discrimination in family life. In 2002, 40.9% of women surveyed replied there was sexual discrimination in family life compared to 40.2% in 1998, an increase of 0.7% (Korea National Statistical Office, 2001, 2003). Likewise, the amount of discrimination perceived by women in terms of school, office, and societal life has not declined.

### **1.2.2 The Quality of Life of Korean Married Women**

According to the Korean Women's Development Institute's study on the quality of life of Korean women (Park, Sun, & Kim, 2005), marital status, age, and employment turned out to be the key variables that shaped the quality of Korean women's daily life. In Korean society, the reality is that women assume most household chores, and because raising children and looking after the family are the initial societal roles given to married women, women's life after marriage is usually relegated to being a housewife.

According to these prior analyses presented in Table 1, the percentage of full-time housewives was highest among relatively young women, and the percentage of women who worked outside the home increased as the women became older. This table shows that women in their twenties and early or mid-thirties, the ages when they are most likely raising young children, have relatively more restrictions on their economic activities than do older women. The economic activity of Korean women tends to decline as they reach their 30's and are rearing their children, and to increase again after they reach their 40's, a trend that is reflected in the M curve (ILO, 2003, 2004). However, in Finland and Sweden, the economic activity rate of women increases as they age from their 20's to their 40's. It seems the role of caregiver is more burdensome to Korean women than to women in western countries, which can be confirmed by the fact that 48.8% of Korean full-time housewives in their 20s-40s are raising preschool children, compared to the working housewives group, with only 27.3% raising preschool children.

**Table 1. Economic Activity Rate of Women by Age; 2003**

	Unit: Percent										
	Total <sup>1)</sup>	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+
Korea	48.9	11.3	61.5	60.5	49.8	58.2	64.0	61.5	56.5	49.0	27.8
Austria	50.5	32.2	65.7	80.9	81.4	81.7	82.6	80.3	71.1	37.1	3.1
Denmark	73.0	60.4	71.3	80.0	82.3	86.3	85.9	85.2	82.8	73.6	20.2
Finland	56.4	34.6	66.0	77.4	80.4	85.0	88.8	88.8	86.0	72.5	10.4
Germany	49.3	26.5	66.7	74.6	78.1	79.5	82.3	81.5	75.4	59.8	8.7
Poland	48.0	7.2	51.0	75.7	78.6	83.8	83.4	78.7	59.0	31.1	9.0
Portugal	54.7	18.0	60.8	85.1	86.3	84.2	78.9	75.8	65.4	52.0	24.1
Sweden <sup>2)</sup>	76.2	36.1	62.8	80.0	83.3	85.5	87.8	87.9	85.2	79.1	56.1
Mexico	38.1	40.8	46.3	47.3	48.6	49.7	44.5	38.8	34.9	24.4	17.1
Australia	55.9	60.0	77.1	74.1	68.4	70.6	74.7	77.8	69.7	51.6	8.9

Note: 1) 15 years old and over 2) 16-64 years old

Source: ILO, Yearbook of Labor Statistic

Surprisingly, women with advanced educational backgrounds were more likely to be in the full-time housewife group, and women with low educational backgrounds were more likely to be in the working woman group, once again confirming that Korea's labor market structure restricts the economic activity level of women with advanced education. Ultimately, the fact that there are more women with low educational background in the working housewife group reflects the reality that women who are at a relatively lower economic or societal status must work along with their husbands to support their families. Also, 34.4% of all working housewives work more than 60 hours a week, showing that a great number of working housewives have an excessive labor burden. Working Korean housewives are clearly suffering from a double burden of paid

and unpaid labor. One obvious result from this double burden is that these working housewives have little spare time.

The burden becomes even greater for some working women when their occupation is considered. Women employed in management or clerical occupations were found to have more spare time than women employed in service, sales, technical, or production jobs, which showed that not only are those working housewives employed in less prestigious occupations but they also have even less spare time. These data suggest that Korean married women still cannot escape the influence of the patriarchal system, the conventions of traditional female gender, and the principles of maternal care.

Traditional problems for women still exist in the Korean society, and stress factors such as difficulties with husbands, the in-laws, raising children, or the problems encountered as working women increase the susceptibility of housewives to various emotional disorders including depression. Depression can be especially fatal for women in Korean society, where there is little social participation for women and a prevalence of patriarchal culture. In other words, it is easier for women to experience frustration in Korean society where there are fewer rights for women compared to the Western societies, and that experience is likely to be followed by depression. Housewives may also be predisposed to depression because they have less economic power than men and become exhausted from tedious everyday housework.

### **1.2.3 Decline in Birth Rate and Stress of Childcare**

In Korea, the number of children per household is decreasing, while the time spent on housework and childcare is increasing. Korea is a densely populated country compared to its land and resources, and the government has intensively promoted its economic development plan

and family planning project since the beginning of the 1960s. Korea's total fertility rate was very high at the time; in 1960, it had a record of 6.0. The average life span at the time was 52.6, and the population composition was pyramid shaped, due to high birthrate-high death rate. However, the total birthrate decreased sharply to 3.6 in 1970, and in 1984, the population replacement level reached 2.1. Despite the government's efforts to influence family planning, the birthrate continued to decrease to 1.6 in 1987, 1.57 in 1997, 1.43 in 2000, and 1.08 in 2005 (Korea National Statistical Office, 2000, 2002, 2006b).

To deal with these circumstances, the Korean government has started childbirth promotion and a dual environment formation plan for home and office, and is strongly promoting a childcare support plan. Nevertheless, it is hard to see these measures yet as being effectively applied in a birthrate-decreasing society to reduce the mental and physical load of mothers giving childcare.

In Korean society, the mentality of fixed role divisions between men and women, and the rigid employment tradition that demands office work above everything else, are still deeply rooted. The employment environment in Korea is office first, male-oriented, and full-time employee oriented. According to the company's situation, one must be ready to take on long working hours, holiday shifts, and transfers within as well as outside of the country. Women who cannot cope with these requirements either quit, switch to part-time temporary employment, or if not, transfer to a workplace that is more compatible with their life even if the job is worse and their treatment is poor. As a result, since these mothers must also take charge of childcare or do chores by themselves at home, they may feel extremely isolated and burdened. Because mothers must manage housework and childcare with little assistance from their spouses, they end up complaining that they have no time of their own. These situations must be taken seriously as,

due to the extreme burden these women are under and their unmet needs for support, these women can find themselves unintentionally delivering poor child care or even child abuse.

In Korean households, because conventional values are still widely held, women are in charge of most of the work of childcare and homemaking. According to the Statistical Office's survey on the division of housework, only 5.7% of those surveyed agreed with the statement "Housework is being equally shared" (double income couples 7.8%, full-time housewives 3.0%), perhaps explaining why most women could expect little help from their husbands. Even with regard to 'playing with children', which one might think would be the easiest activity for fathers to participate in, 58.9% of Japanese fathers, compared to 53.5% of Korean fathers, saw this as an activity that should be done jointly with their wives. Conversely, 12.2% of Japanese fathers, compared to 30.4% of Korean fathers, thought it was completely the mother's responsibility (Korea Institute for Health and Social Welfare, 2000).

Accordingly, the burden imposed on Korean women by childcare responsibilities is thought to be extremely large. Therefore, developing more societal support to relieve the childcare stress or the burden of mothers caring for children in Korea can be considered an extremely important task.

### **1.3 PURPOSES OF THE STUDY**

To date, limited work has been done on chronic stress that specifically relates to women who are mothers, or to women in differing socioeconomic groups in Korea. In the social work field, more studies focus on the family than on women. And the social work studies of poor women that have been reported are more commonly concerned with the development of

programs for poor women's self-sufficiency, or they survey actual conditions, propose problem-solving strategies, or research the state of the family and social networks (Korean Women's Development Institute, 1990). Moreover, there is very little research on parenting practices of poor women.

Contextual variables may represent a different sort of stress than the economic factors of interest in most family stress models. Life circumstances common to low-income parents, such as high levels of daily stress, chaotic home life, task overload, meager financial resources, and few social supports, may influence maternal adjustment, parenting behavior, and child development. Aside from economic disadvantage, however, few sources of stress have been studied in the family stress framework with respect to their effect on parental psychological functioning and parenting. Despite the high correlation with income, poverty alone does not fully explain the parenting style of caregivers. The present investigation is premised on the assumption that parenting behavior develops as the result of multiple factors that combine to produce a final effect.

The purpose of this study is to analyze the observable relationship between life stressors (acute stress, chronic stress, and parental stress) and maternal depression among economically disadvantaged Korean women as these relate to parenting self-efficacy. Relatively little is known about the impact of both chronic daily stressors and discrete life events on mental health and parenting beliefs in a multiple-risk family setting. I would like to examine how the socioeconomically disadvantaged parents' stressors will affect maternal stress levels, especially mothers' depression levels, and how stress alters the way they relate to their children. By means of these models, I will compare the aforementioned processes in low-income and high-to-middle income families. Because adversity and stress may vary among demographic groups, I will



focus on women of childbearing age with low incomes, as they have been found to experience high levels of depressive symptoms. These women will be compared to a group with more income.

#### **1.4 SIGNIFICANCE OF THE STUDY**

The results of this project may contribute to our knowledge of what is important to women who experience economic distress and their children, and to the development of social policy. Social workers constantly meet families who experience multiple stressors in their lives, and economic distress is often among these potential stressors. Poverty is presumed to place children at risk for negative developmental outcomes as a number of studies have found that children in this risk group are more likely to be identified as having external conditions that can function as vulnerabilities. This study may shed light on the proposal to initiate preventative parenting supports aimed at minimizing disruptions to parenting when mental health problems become apparent in the parent, but before they become apparent in the child. They are also consistent with messages about supporting families faced with other stresses or problems.

Another important contribution of this study will be to extend the definition of stress in the family stress model beyond financial hardship to include the life events and chronic life conditions that often accompanies socioeconomic disadvantage. If we reveal the relationships between life stressors and psychological distress among women in poverty, we will also have revealed a key pathway through which exposure to overall stress results in disrupted parenting. This means that more emphasis could be given to life events and chronic life conditions in order

to improve the mental health of women in poverty and the quality of parent-child relationship. Through this process, I will explore ways to promote the acquisition of knowledge and skills that will enable the low-income mother to become more competent, thus further strengthening her ability to parent effectively.

## **2.0 LITERATURE REVIEW**

### **2.1 STRESS AND THE STRESS PROCESS IN ECONOMICALLY DISADVANTAGED FAMILIES**

#### **2.1.1 Stress: Conceptualization and Sources**

The stress literature indicates that members of disadvantaged social groups are especially vulnerable or emotionally reactive to stressors. Socioeconomically disadvantaged families can be considered within the context of stress and coping. Stress theory generally holds that stressors motivate efforts to cope with behavioral demands and with the emotional reactions that are usually evoked by them (Lazarus & Folkman, 1984). As stressors accumulate, one's ability to cope or readjust can be overtaxed, depleting physical or psychological resources, and increasing the risk of mental disorders (Brown & Harris, 1978; Dohrenwend & Dohrenwend, 1974; Lazarus & Folkman, 1984; Pearlin, 1989).

##### **2.1.1.1 Life Stressors: Events and Strains**

Three major forms of stressors have been investigated in the stress literature: life events, chronic strains, and daily hassles (Thoits, 1995). Life events are acute changes which require major behavioral readjustments within a relatively short period of time (e.g., birth of first child, divorce). Chronic strains are persistent or recurrent demands which require readjustments over

prolonged periods of time (e. g., disabling injury, poverty, marital problems). Hassles (and uplifts) are mini-events which require small behavioral readjustments during the course of a day (e. g., traffic jams, unexpected visitors, having a good meal).

Early research on stress was shaped by the assumption that change of any sort was potentially deleterious to well-being. The Social Readjustment Rating Scale was based on this premise (Holmes & Rahe, 1967). The development of this instrument involved rating events based on “the amount and duration of change in one’s accustomed pattern of life resulting from various life events” (p. 213). No distinctions were made between positive or negative sources of stress. Events that were potentially positive in nature, such as “improvement in finances,” “an outstanding personal achievement,” and “a vacation”, were rated along with “death of a spouse” and “being fired from work”. Later stress research focused solely on the effects of negative events because the relationship between negative events and distress was more consistently supported in the literature (Turner & Wheaton, 1995). Therefore, the model of the stress process was reconceptualized.

Over time, many investigators shifted their attention to cumulative risk rather than the impact of a single event. According to Wheaton (1997), chronic stressors (a) “develop slowly and insidiously as a continuing problematic condition in our social environments and roles and (b) typically have a longer time course than life events, from onset to resolution” (p. 53). Chronic burdens include low income, large number of children, preschool children, little education, frequent residential mobility, poor health, and being the only adult in a child-rearing family (Ensminger, 1995). Whereas short-term change was a requirement for stress in earlier conceptualizations, a continuous sense of being burdened has become the focus of most research on chronic stressors.

In a population survey, Mattlin, Wethington, and Kessler (1990) found that respondents were more likely to report chronic stressors as opposed to discrete events when asked to describe their most stressful experience. McGonagle and Kessler (1990) found that chronic stressors more strongly related to symptoms of depression than did discrete events. However, chronic strains or difficulties have been less frequently studied than life events. Thoits (1995) mentioned that examinations of event and strain combinations are actually capturing the effects of particular event and strain sequences. A comprehensive understanding of the effects of stress on health requires an assessment of both chronic and event-based stressors and their interrelationships. In this study, therefore, I will examine the association between both acute and chronic stressors, on the one hand, and mother's depression, parenting-specific stress, and parenting self-efficacy, on the other hand.

#### **2.1.1.2 Cognitive Factors in Stress and Illness**

Human research spearheaded by Lazarus and his associates (Lazarus & Folkman, 1984) has identified psychological appraisal as a crucial mediating process in the experience of stress. Lazarus concluded that an environmental, or "social" stressor is cognitively appraised by an individual to create a "psychological" level of stress convergence.

In the theory of emotion developed by Lazarus and his colleagues (Lazarus, 1991; Lazarus & Folkman, 1984), one's appraisal of a situation plays a large role in determining his or her potential for perceived stress. In Lazarus' model, events are judged to be positive, negative, or neutral in their implications, and if judged negative, are further evaluated as to whether they are harmful, threatening, or challenging. Primary appraisal occurs when a person evaluates the significance of a specific transaction, and judges it to involve harm, loss, or threat. Secondary appraisal, then, involves the person evaluating whether certain coping actions are available to

handle the stressors. In other words, the level of stress experienced by an individual is a result of the interplay of a cognitive appraisal process that results in what is often called perceived stress. Indeed, some studies have found that perceived stress was a more powerful predictor of mental health outcomes than the occurrence of stressors alone (Noh & Turner, 1987).

The transformation of stress into risk for psychological or physical symptoms is associated with the way in which the individual evaluates his or her environment with regard to well-being (Lazarus & Folkman, 1984). Thus, another way of reducing the impact of risk is to change its meaning. Research examining the utility of cognitive models of psychological adjustment in adult populations has shown that beyond direct influences, cognitive factors can interact significantly with stress in the prediction of adjustment. The fact that stress theory focuses on cognitive aspects provides an opportunity to examine perceived life events and conditions and determine how they will affect the person in this study.

### **2.1.2 The Stress Response**

Selye (1976) suggested that every stressor produces certain reactions specific to that stressor as well as a set of nonspecific changes that result from all stressors. Overall physical health status or specific health problems (i.e., hypertension) and mental health status (i.e., psychological distress or specific disorders) have been the most widely examined outcomes of stress exposure among adult populations. In addition, scholars have linked stress exposure to a number of health behaviors, including alcohol consumption, smoking, and eating behaviors.

### **2.1.2.1 Life Events and the Stress Responses**

Until around thirty-five years ago, a principal focus of research on social status conditions in mental health was stressful life events, which had been repeatedly shown to be associated with physical and mental health outcomes (Dohrenwend & Dohrenwend, 1974; Jemmott & Locke, 1984). This life events perspective postulated a quantitative difference in the frequency or severity of life events experienced by persons in different class positions, and assumed that the higher rate of mental illness associated with lower-class life was partly the result of a greater number of, or greater severity of, stressful life events (Liem & Liem, 1984).

The cumulative work of Dooley and Catalano (1980) provides persuasive evidence that macro level economic processes influence individual-level stress response processes. Their theoretical model includes several direct linkages: environmental economic change produces individually experienced life-event change, life events produce symptoms of psychological disorder, and symptoms create a demand for services (Dooley & Catalano, 1980). For example, economic losses or burdens generate undesirable job and financial events, which in turn increase illness and injury and the resultant use of mental health services (Dooley & Catalano, 1980).

Poor women, for example, have been shown to experience more frequent, more threatening, and more uncontrollable life events than the general population (Brown et al., 1975; Dohrenwend, 1973), typically in the context of ongoing, chronic deprivation (Ennis, Hobfoll, & Schroder, 2000). Bassuk et al. (1998) found that 83% of the low-income mothers in their sample had been physically or sexually assaulted during their lifetimes. Over a third had experienced posttraumatic stress disorder. The onset of depression has also been linked to the experience of humiliating or entrapping severe life events, which are, in turn, more common among women experiencing financial hardship (Brown & Moran, 1997).

Other lines of research have indicated that negative events are somewhat more strongly related than total events to disease and physical symptoms (Lin & Ensel, 1989). Social and economic conditions of life seem to be adversely restructured by three recognized factors: involuntary job loss (Pearlin, Lieberman, Menagham, & Mullan, 1981), divorce (Pearlin & Johnson, 1977), and death of spouse (Pearlin & Lieberman, 1978). These events commonly result in such circumstances as increased economic hardship, heightened interpersonal conflict, or greater social isolation.

McDaniel & Slack (2004) suggested that low-income caregivers who experience major life events are more likely to be investigated for child maltreatment. The persisting effect of births, child expulsions/suspensions, and housing moves suggests that heightened visibility associated with such events may be a potential source of increased risk for Child Protective Services involvement. Unlike daily hassles or minor stressors, major life events are relatively severe and alter everyday functioning. Such events may increase the risk of child maltreatment through parental stress and an over-reliance on harsh discipline as well as through changes in social support.

#### **2.1.2.2 Chronic Stress and the Stress Responses**

Acute stressors usually are equated with objective, discrete events that are not the result of the individual's psychological functioning. Chronic stressors, in contrast, are often seen as subjective, influenced by emotional functioning, and lacking a clear origin in time (Kessler et al, 1985). Chronic stressors represent continuously demanding or difficult situations that do not change easily; for example, financial hardship, crowded housing arrangements, marital problems, unemployment, and discrimination on the basis of gender, race, and other factors.



Over time, many investigators have shifted their attention from single event stressors to cumulative risk studied either by aggregating information about stressful life experiences or by aggregating risk indicators.

According to Pearlin (1989), the major precursors of stress are more likely to occur in the conflicts and frustrations experienced by ordinary people doing ordinary things than in exotic, ephemeral, or once-in-a-lifetime events. According to Avison and Turner (1988), chronic strains, event-related stressors, and time-ambiguous events all contribute independently to depressive symptomatology, but chronic strains are most potent.

Several distinct sources of chronic stress have been identified. Wheaton (1983) delineated the following: barriers in the achievement of life goals; inequity in the form of inadequate rewards relative to invested effort or qualifications; excessive or inadequate environmental demand; frustration of role expectations; and resource deprivation. Chronic stressors also include difficulties associated with participation in institutionalized roles (Pearlin, 1983); enduring interpersonal difficulties (Avison & Turner, 1988); status inconsistency, goal-striving stress, life-style incongruity (Dressler, 1985); social and economic hardship including poverty, crime, violence, overcrowding, and noise (Eckenrode, 1984), homelessness (La Gory et al, 1990), and chronic physical disability (Turner & Noh, 1988).

## **2.2 PARENTING, PARENTING SELF-EFFICACY AND THE ECONOMICALLY DISADVANTAGED CHILD**

Much empirical history has documented how positive parenting that is characterized by positive parent-child relationships, open displays of warmth or affection, monitoring of

children's activities, and consistency in disciplinary strategies, relates to various measures of adaptive child psychosocial adjustment. Across many studies with diverse populations, these parenting behaviors have been associated with greater academic competence, higher self-esteem, positive peer relations, and fewer child behavior problems (Baumrind, 1978; Brody & Flor, 1998; Patterson, Reid, & Dishion, 1992). Positive parenting has been found to be particularly important for children in families facing adverse circumstances, such as financial hardship, parental divorce, or parental illness (Fauber, Forehand, Thomas, & Wierson, 1990). Research into these life experiences suggests that positive parenting provides children with a buffer against such stresses and strengthens their coping abilities.

### **2.2.1 Social and Economic Context of Parenting**

Socioeconomic factors appear to have a direct effect on parenting behavior. Economic hardship and heavy income losses in families studied longitudinally in a US city during the depression of the 1930s were associated with more punitive, arbitrary, and rejecting parenting by fathers (Elder, 1974; Elder, Nguyen, & Caspi, 1985). An increase in economic hardship has been linked with a decrease in parental nurturance and an increase in inconsistent discipline by both parents (Conger, Ge, Elder, Lorenz, & Simons, 1994; Lempers, Clark-Lempers, & Simon, 1989; McLoyd, 1990; Mistry, Vandewater, Huston, & McLoyd, 2002). Unemployed fathers display fewer nurturing behaviours than other fathers (Harold-Goldsmith, Radin, & Eccles, 1988). Low income, in combination with low levels of perceived social support, has been associated with a higher probability of punitive behaviour by the parent towards the child (Hashima & Amato, 1995). Unemployment and low income are strongly associated with child abuse referrals (Baldwin & Spencer, 1993; Gilham, Tanner, Cheyne, Freeman, Rooney, & Lambie, 1998).

When parents' well-being is compromised, behavior toward the child may be adversely affected (Crnic & Acevedo, 1995). According to Peterson and Hawley (1998), when parents experience multiple sources of stress, their perceptions of the family environment and their attitudes toward parenting suffer. Petit and colleagues (1994) have demonstrated that mothers under stress are more controlling and less supportive of their preschoolers than less hassled mothers.

Stresses that occur in the daily life of parents who are unsuccessful in providing subsistence to their families are likely to affect their expectations and their sense of efficacy. Low-income parents may have low self-efficacy because of adverse environmental conditions or depression (Olds, 1997). Previous efforts to change their behaviors or circumstances may have met with resistance, thus teaching them low self-efficacy by experience. In fact, parents are more likely to have negative beliefs about parental involvement and efficacy in lower socioeconomic classes (Luster & Kain, 1987).

It is clear that understanding a parent's social and economic context is important to understanding his or her performance as a parent. Poor parenting should be seen within the overall social and environmental context.

### **2.2.2 Parenting in Context: Family Stress Theory**

One relatively independent line of research provides insight into some of the factors that influence parenting behavior. Family stress theory postulates that the primary mechanism through which contextual stressors impair parenting is through their effect on parental psychological distress (McLoyd, 1998). According to the family stress model, exposure to stressful life events increases parental psychological distress, which, in turn, compromises

parenting, which then exacerbates child behavioral and emotional maladjustment. The intimacy of the maternal bond is often strained or broken by economic stress, and parent-child relationships are also vulnerable (Brown & Moran, 1997; Longfellow, Zelkowitz, & Saunders, 1982).

Empirical support for this theory is rooted in the work of Elder and his colleagues, who studied the effects of the Great Depression on family functioning (Elder, Liker, & Cross, 1984; Elder, Nguyen, & Caspi, 1985). Taken as a whole, Elder's research demonstrated that economic hardship was associated with fathers' increased irritability, depression, and explosive behavior, which then led to disruptions in effective parenting. This pattern of findings that economic stress exacerbates parental psychosocial distress, which then disrupts parenting (and subsequently, child adjustment) has been replicated in contemporary, two-parent European-American families (Conger, Ge, Elder, Lorenz, & Simons, 1994), two-parent African-American families (Conger et al., 2002), and single-parent African American families (McLoyd, Jayaratne, Ceballo, & Borquez, 1994).

Additional research linking economic factors to parenting is also available. According to Conger et al. (2002)'s study, economic pressure was related to the emotional distress of caregivers, which in turn was associated with problems in the caregiver relationship. These problems were related to disrupted parenting practices, which predicted lower positive child adjustment and higher internalizing and externalizing symptoms. Conger et al.'s propositions regarding the role of economic pressure in family hardship derive from Berkowitz's (1989) reformulation of the frustration-aggression hypothesis. Berkowitz demonstrated that many stressful, frustrating, punishing, or painful events and conditions are related to increased emotional arousal or negative affect that varies from despondency to anger in both humans and

other animal species. Following Berkowitz, Conger and his colleagues proposed a direct correlation between the depressed mood of an adult caregiver and the target child's engagement in conflict or withdrawal in their interactions.

Parental functioning is influenced by a variety of forces. Family stress theory, especially, positions parental psychological distress as the most proximal influence on parenting behavior. In this study, the family stress model will be expanded to include perception of life stressors as a factor that may impair parenting through its negative effect on maternal psychological functioning.

### **2.2.3 Parenting as a Buffer of the Development of Children Exposed to a Context of Adversity**

Developmental scientists have hypothesized that a key process by which economic hardship affects children is through its effects on parenting (McLoyd, 1990; 1998). Consistent with this view, investigators have found effective parenting in a high-risk context, like poverty, to be associated with competence in children. The “distal” risk of dangerous neighborhoods, for example, may be mitigated by “proximal” protective processes such as secure homes characterized by warm parents who carefully monitor their children (Baldwin, Baldwin, & Cole, 1990; Richters & Martinez, 1993). In other words, good parenting provides a protective influence in the context of childhood adversities.

Whereas parenting behavior is an important mediator of the effects of poverty on children's functioning, it also may be crucial in buffering poor children from the negative effects of discrete and chronic stressors outside the family experience. In Cowan, Wyman, Work, and Parker's (1990) sample of urban children exposed to a high number of chronic adversities and

negative life events (e.g., poverty, family turmoil, illness-death, violence), stress-resilient children were identified as those who received high ratings from parents and current or former teachers on peer relations, likeability, leadership qualities, and school performance. Results indicated that stress-resilient children were distinguishable from stress-affected children on the following factors: non-separation of child and primary caregiver during infancy; positive parent-child relations during the preschool and elementary school years; a strong sense of parenting efficacy by the primary caregivers; and parental use of reasoned, age-appropriate, and consistent disciplinary practices. Similar parenting variables have predicted stress resilience in other samples (Masten, Morison, Pelligrini, & Tellegen, 1990; Rutter, 1990; Werner & Smith, 1982). Also noteworthy is the finding by Masten and colleagues that stress-resilient children identify more strongly with their parents and perceive their parents as more supportive and less harsh than do highly-stressed children with severe learning and behavioral problems (Masten et al., 1990; Werner & Smith, 1982).

Several family factors have been shown to serve as buffers against the emergence of psychological symptoms in children. Specifically, a warm and supportive mother-child relationship and maternal monitoring of child behavior have been associated with fewer internalizing and externalizing behaviors in African-American youngsters in urban communities (Klein & Forehand, 2000). In a related vein, consistent family routines and harmony in the mother-child dyad have been predictive of lower levels of both internalizing and externalizing behavior problems among rural, African-American children living in the South (Brody & Flor, 1997). In conclusion, the quality of parenting has been investigated as a possible influence on the course of competence in children.

#### **2.2.4 Parenting Self-Efficacy**

In addition to parenting practices, it is also important to consider parental beliefs about parenting. Bandura's perspective (1982, 1989) on perceived competence suggests that parents who feel competent in specific tasks are more likely to derive satisfaction from parenting. Thus, they may have a higher level of motivation than those parents who do not feel competent. This motivation is assumed to improve their parenting abilities.

Self-efficacy is defined as an individual's judgment of how well one can carry out the necessary steps to deal with a specific task or challenge (Bandura, 1982). Self-efficacy is developed over the individual's developmental history, shaped and reinforced by one's subjective experience as well as by contextual factors from all ecological systems. For instance, an individual who experiences support and validation from her family, friends, and community might possess a more positive outlook on her life as opposed to an individual who continues to feel rejected and devalued by others. Past successes arguably raise one's sense of self-efficacy, leading one to persist at difficult tasks. In contrast, one who lacks an adequate sense of self-efficacy might feel helpless over her situation, leading her to give up easily (Bandura, 1982; 1989). Cumulative experiences of helplessness over environmental stressors can erode one's sense of self-efficacy. Thus, many psychologists have argued that self-efficacy is a pivotal, or mediating, psychological factor in the relation between thought and action (Brody, Flor, & Gibson, 1999; Coleman & Karraker, 1998; Jackson & Huang, 2000; Teti & Gelfand, 1991). More specifically, parenting self-efficacy is a cognitive factor that filters parenting experiences and helps the parent to determine how to react to those experiences.

Parenting self-efficacy might be diminished in conditions of economic hardship. Low-income parents face grave psychological strains when trying to provide adequately for their

families in the context of limited resources and support, which intuitively suggests that women from disadvantaged communities will report low levels of parenting self-efficacy (Elder, Eccles, Ardel, & Lord, 1995; Raver & Leadbeater, 1999). However, researchers have found evidence to the contrary. Jarett (1994) suggested that raising and caring for children provides a sense of self-worth for low-income women, thus they report high self-efficacy. Raver and Leadbeater (1999) also demonstrated that despite the challenges of raising young children in the context of poverty, mothers mean levels of self-efficacy were comparable to those of more socioeconomically advantaged, non-depressed mothers.

### **2.2.5 Parenting Self-Efficacy as a Mediator of Parental Outcomes**

The literature suggests that parenting efficacy is related to parenting and child outcome. Early research found that low parenting efficacy was related to children's difficult temperament (Bugental & Shennum, 1984). A review of research noted that parenting self-efficacy has emerged as a powerful correlate of parenting skills and a mediator of the effects of varied constructs related to child outcome (Coleman & Karraker, 1997). Among Head Start families, parental efficacy mediated the relation between children's difficult temperament and home learning activities (Machida, Taylor, & Kim, 2002). In a study of families living in inner-city neighborhoods, parenting efficacy was a predictor of positive parenting among African American families; however, there was no relation between parenting efficacy and parenting among Caucasian families (Ardelt & Eccles, 2001). It was noted that within this disadvantaged group, African American families tended to live in more dangerous neighborhoods than Caucasian families. A study of parental efficacy among middle-class families showed no relation between efficacy and parenting practices (Corapci & Wachs, 2002). In addition,



parenting efficacy was a stronger correlate of academic success in African American single-parent families and married families reporting husband-wife conflict than in Caucasian families and African American families who reported having a compatible marriage relationship.

Although developmental research continues to show a trend toward examining parental beliefs as well as parental behavior, research on parental beliefs is still an emerging field. As such, varied definitions and operationalizations of parental efficacy exist (Lovejoy, Verday, & Hays, 1997). The construct of parental efficacy has been alternatively described as parent attributions (Bugental, Blue, & Cruzcosa, 1989; Deutsch, Ruble, Fleming, Brooks-Gunn, & Stangor, 1988), parental locus of control (Campis, Lyman, & Prentice-Dunn, 1986; Del Carmen, Pedersen, Huffman, & Bryan, 1993), parental sense of competency (Johnston & Mash, 1989), and parenting self-agency (Dumka, Stoerzinger, Jackson, & Roosa, 1996). Parents' perceived control over child outcomes, their expectations for themselves as parents, and prior experiences in teaching their children all affect personal perceptions regarding competence.

### **2.3 SUMMARY AND CRITIQUE OF PRIOR RESEARCH ON STRESS AND PARENTING IN ECONOMICALLY DISADVANTAGED FAMILIES**

In general, mainstream stress research has been slow to examine the social and cultural contexts of many stress-related phenomena, particularly their relationship to societal-level or social class-related stress sources and their potential mediation by context-specific coping resources. Two factors may have contributed to this shortcoming: (a) the field's tendency to be confined by its roots in physical as opposed to social science and (b) the field's failure to learn from other bodies of research in the mental health field. To state that all research related to

stress and health has a history of being de-contextualized would undermine the contributions that many stress researchers have made to our understandings of the relationship between health (mental and physical) and social class. In addition, Dressler (1991) has noted that in some of the earliest community studies of life conditions and health, the social and cultural contexts of the lives of the study participants were underscored, but found it interesting that the vast majority of stress research that followed this early period was devoid of social and cultural understandings.

Many researchers would agree that items that are included on events stress and chronic stress scales should reflect the types of issues that are likely to be encountered by the population being studied. A number of standard scales have been used cross-culturally, and some early stress researchers concluded that overall rankings of events (i.e., in terms of the adaptation required) are consistent across nationalities, races, cultures, and income levels (Masuda & Holmes, 1967). This conclusion can be dangerous, however, in that it assumes that scales derived from research on middle-class White populations can be used universally. Asking members of diverse target populations to generate lists of the stressors they have experienced, as opposed to asking them to respond to lists of stressors generated by the middle-class White samples, may be beneficial as it could allow different stressors that are more salient to that particular population to emerge. Apart from measurement per se, social and cultural issues should be considered when interpreting the results of studies involving standard stress inventories. Researchers should be concerned with why particular stressors occur for some groups and what these stressors reveal about the realities of their respondents' lives. It is essential to study and learn about the impact of life stressors on families and children in different cultures.

The past two decades have witnessed a proliferation of research that has examined the effects of socioeconomic disadvantage on children and families (Brooks-Gunn, Duncan, & Maritato, 1997; Hill & Sandfort, 1995; Huston, McLoyd, & Garcia Coll, 1994; McLoyd, 1998; Parcel & Menaghan, 1997). Recently, research has started to move beyond descriptive studies of poverty and child functioning to focus on understanding the pathways through which low income affects children's well-being. There is mounting evidence that such family processes as the quality of the marital relationship and the nature of the parent-child relationship are important mediators of the influence of economic hardship on children's emotional and social development (Brody et al., 1994; Conger & Elder, 1994; Conger, Conger, & Elder, 1997; Conger, Ge, Elder, Lorenz, & Simons, 1994; Elder, Liker, & Cross, 1984; Conger, McCarty, Yang, Lahey, & Kropp, 1984; Elder, Eccles, Ardel, & Lord, 1995; Jackson, Brooks-Gunn, Huang, & Glassman, 2000; Lempers, Clark-Lempers, & Simons, 1989; McLeod, & Shanahan, 1993; McLoyd, 1998). Despite strong empirical support for the family economic stress model, important gaps in the literature remain. The work of Conger and colleagues (Conger & Elder, 1994) has informed much of our understanding of the interactions between economic hardship, family process variables, and children's well-being. Their findings, however, are restricted to the establishment of a link to economic loss but not to poverty. It is clear that there is a gap in our empirical knowledge regarding parents' responses regarding family processes and poverty.

Moreover, most of the previous research on the stressors affecting socioeconomically disadvantaged women tends to be concerned less with the origins of stressful life experiences than with the consequences of such experiences for illness outcomes, especially psychological disorder. There may be other stressful experiences that influence the relationship between economic situation, maternal mental health, and parenting. It is plausible that other stressors,

such as life events or chronic conditions, play a dynamic role in the stress-outcome relationship. Baker (1994) suggests that both high and low SES groups have their own inherent set of stressors that limit parents' coping or resources so as to heighten parent-child interactive disruptions. Given the importance of parenting in promoting child adjustment, it is disheartening that little is known about the personal and environmental factors that shape or affect parenting beliefs. Certainly, research has shown that parenting can be adversely affected by such factors as financial stress (McLoyd, 1998) and parental conflict (Fauber et al., 1990). However, our understanding of how stressors lead to compromised parenting beliefs remains rather limited. Examining more extended sequences of stressors over the life course may help further specify the conditions under which stressors damage mental health and differentially affect socioeconomically disadvantaged women.

In Korea, there have been several studies that investigated the relationship among children's behavior problems, maternal depression, and parenting stress. Lee et al.'s (2003) study reported that, among children with psychiatric diagnoses, parenting stress was explained by maternal depression. Lee's (2003) study revealed that mother's health status, the age and temperament of children, the degree of spousal support in the care of children, the number of children, and the mother's depression were all variables related to child caring stress among mothers of infants and toddlers. Park & Jang's (2004) study reported that parenting stress was more effective than other variables in predicting the social development of the sample's preschool children. According to Kwak et al.'s (2004) study, mildly depressed mothers nurtured their children by kissing and stroking more often than did severely depressed mothers.

Another recent study investigated work stress and identified the various factors that affected stress responses among married women who were employed in the manufacturing

industry. Kim's (2003) study found that perceived work stress differed significantly according to age, length of marriage, salary, behavior type, discomfort related to menstruation, history of smoking and alcohol consumption, duty type, job stability, weekly work time and presence of young children in the family.

Limited empirical work has been done, however, on stressors that relate to socioeconomically advantaged women in Korea who are mothers. Moreover, none of the available studies has examined the mechanisms through which socio-environmental stress may negatively affect parental distress and parenting self-efficacy.

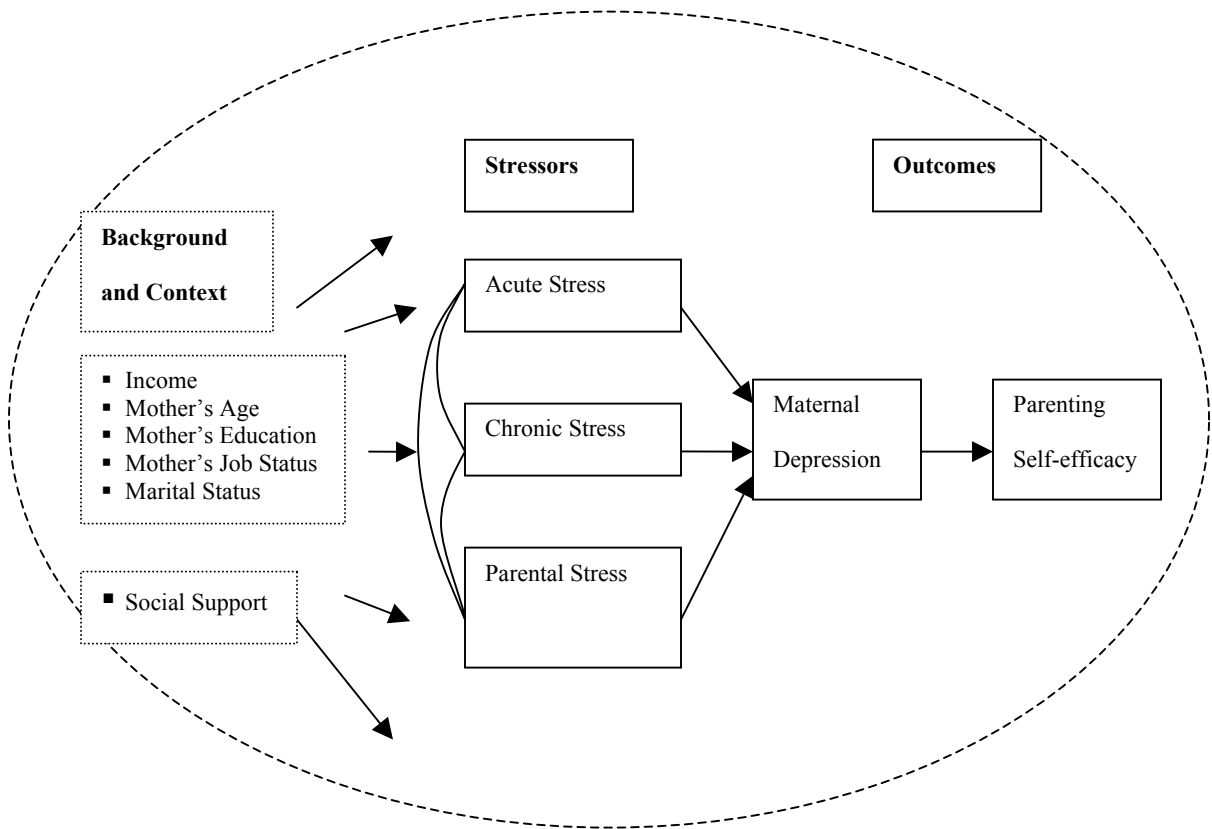
## **2.4 CONCEPTUAL FRAMEWORK AND HYPOTHESES**

### **2.4.1 Conceptual Framework**

As we look at the research on how the socio-environmental status of parents affects maternal stress levels, parenting, and children's well-being, we can see the influence of maternal mental health issues and psychosocial attributes in economically disadvantaged families. Proponents of social causation perspectives reasoned that low-status social groups showed high rates of disorder because members of these groups disproportionately encountered difficult, harsh, or traumatic life conditions. The literature suggests that these factors may work to diminish effective parenting in an economically stressful state.

This study builds upon and extends the available literature in the following important ways. The family stress model is expanded to include the perception of socio-environmental stresses as factors that might impair parenting through negative effects on maternal

psychological functioning. In addition, parental stress will be added as a stressor contributing to parenting quality. Existing evidence suggests that parenting self-efficacy is empirically related to the indicators of good parenting. Therefore, I will measure parenting self-efficacy as a potential indicator of the quality of parenting. Income, mother's age, mother's education, mother's job status, marital status and amount of social support were considered as control variables. Turner et al. (1995) determined that life stressors were distributed unequally across social classes, ages, and genders, and that low-income families were exposed to more stressors, which in turn lead to more depressive symptoms. Most research shows an inverse relationship between socioeconomic status (SES) and depression, especially among women (Dohrenwend et al., 1992). Koeske & Koeske (1990) discovered that mothers who were more highly educated were found to be less affected by parental stress. Some believe that combining the roles of employment and motherhood can be a strain on low-income women because of occupational experiences such as high job demands, few opportunities for advancement, low salary and poor work skills (Hibbard & Pope, 1985; Menaghan & Parcel, 1995). Social support literature (Cohen and Wills, 1985; House et al., 1988) indicates that social support is directly and positively related to mental health. Low-income caregivers with little emotional support have been shown to frequently employ harsh discipline (McLoyd & Smith, 2002). The conceptual model for this study is presented in Figure 1. As previous studies have found that low-income women are more stressed and depressed than other women, in the current study economically disadvantaged women will be compared to high-to-middle income women in order to test the difference of stress, mental health and their impact on parenting self-efficacy, between women of different economic classes.



**Figure 1. Empirical Model of the Stress-process of Economically Disadvantaged Korean Women**

### **2.4.2 Hypotheses**

The purpose of this study is to empirically assess the interrelationships among life stressors, parental stress, maternal depression, and parenting self-efficacy in socioeconomically disadvantaged women. Based on the theoretical framework and previous research in this area, I will examine the following hypotheses in this study:

Hypothesis 1. Acute stress (stressful life events) will be negatively related to parenting self-efficacy.

Black, Heyman and Slep (2001) determined that the presence of more stressful life events increased the probability that mothers would utilize severe physical punishment or abusive strategies with their children. Abidin (1995) argues that life events occurring outside the parent-child system have their effect by depleting parents' emotional resources and perceived ability to cope with their parenting role. There is some research which suggests that stressful life events (e.g. housing problems, death of a relative, loss of employment, etc.) are associated with the levels of parenting stress experienced by parents of children with externalizing behavior (Gaines et al., 1978; Adamakos et al., 1986; Taylor et al., 1997).

Hypothesis 2. Chronic stress will be negatively related to parenting self-efficacy.

Environmental conditions such as poverty, divorce, community violence, inconsistent work history, and coincident violent marital conflict clearly may have a negative impact on parenting behaviors and beliefs about one's efficacy as a parent (Elder, Eccles, Ardel, & Lord, 1995; Holden & Richie, 1991; Raver & Leadbeater, 1999). Maternal stress, from environmental conditions in the family, also may affect parenting behaviors to influence child adjustment (Cummings & Davies, 1992; Holden & Richie, 1991).



Hypothesis 3. Parental stress will be negatively related to parenting self-efficacy.

Parental stress can impact on parents' use of effective parenting strategies in the parent-child dyad. Conversely, when parents view parenting as manageable and within their control, they have better adjustment to parenting. This finding supported the contention of Campbell and colleagues that parenting stress was associated with higher levels of negative maternal control (Campbell, Pierce, March, & Ewing, 1991). An individual's perception that parenting is stressful may also be influential in determining child maladjustment.

Hypothesis 4. Acute stress (stressful life events) will be positively related to maternal depression.

The hypothesis of this research tradition was that the elevated levels of psychological distress and disorder observed among people in low-status groups might be attributable in part to their greater exposure to more numerous, or more severe, stressful life events (Dohrenwend and Dohrenwend, 1969; Kohn, 1972).

Hypothesis 5. Chronic stress will be positively related to maternal depression.

Loss of material resources, or the threat of their loss, was associated with depressed mood in both African American and European American low-income single women in the US (Ennis et al., 2000). Inadequate housing, burdensome responsibilities, and other chronic conditions are even more stressful than acute crises and events (Brown et al., 1975; Dressler, 1985), and typically set the stage for acute, stressful material losses (Ennis et al., 2000).

Hypothesis 6. Parental stress will be positively related to maternal depression.

As Levy-Shiff and colleagues discovered, when parents view daily parenting as stressful, they are more likely to be distressed (Levy-Shiff, Dimitrovsky, Shulman, Har-Even, 1998). Teti

and Gelfand's (1995) study also found maternal depression was significantly associated with parenting stress.

Hypothesis 7. Maternal depression will be negatively related to parenting self-efficacy.

According to Goodman and Brumley (1990), the parenting skills of depressed women were limited. As expected, depressed mothers were not as responsive or involved as non-depressed mothers and did not provide as much structure or discipline as the non-depressed group. Depressed mothers also tended to make more negative appraisals of their child's behavior than non-depressed mothers (Schaughency & Lahey, 1985). For mothers, major depression compromises their ability to respond to their children and places children at considerable risk for psychopathology and developmental difficulties. Similarly, in a study conducted by Webster-Stratton and Hammond (1988), depressed mothers perceived their children as having more behavior problems than did non-depressed mothers. According to Misty et al. (2002), distressed parents reported feeling less effective and less capable in disciplinary interactions with their child and were observed to be less affectionate in parent-child interactions.

Hypothesis 8. The relationship between life stressors (acute stress, chronic stress, and parental stress) and parenting self-efficacy will be mediated by maternal depression. The strength of the relationship between stressors and outcomes is expected to be reduced when maternal depression is statistically controlled.

Parental psychological distress, in the form of maternal depression, has been suggested as a mediator of the relationship between economic hardship and parenting. Patterson's studies (1988; Patterson, DeBarsyshe, & Ramsey, 1989) have demonstrated that stressful experiences

increase psychological distress in mothers and produce changes in family and child-management practices.

### **3.0 METHOD**

#### **3.1 DESCRIPTION OF STUDY DESIGN**

The study was a cross-sectional exploratory study, using a convenience sampling method to describe the role of stressors on the lives of families and children. The quantitative design included a self-administered questionnaire that measured the life events, chronic stress, parental stress, maternal depression, and parenting self-efficacy.

The primary study was conducted in day care centers in Seoul, Korea. Seoul was chosen as the recruitment site because daycare centers were more prevalent in this large city.

I explored the links between life stressors, maternal depression and parenting self-efficacy, with two economic comparison groups - low-income and middle-income families who also have used child daycare services. In consideration of geographic equality, I chose 10 daycare centers located in lower-income areas of Seoul and two daycare centers located in middle-income areas.

#### **3.2 PARTICIPANTS**

Childcare subsidies are provided for children of families who are receiving public assistance income. The eligibility criterion for receiving public assistance in Korea is an income

at or below the national poverty level (\$16,092 per four household members in 2006). Financial subsidies are available in four levels for children of families identified as having incomes of \$ 23,460 or less annually for a family of four. Subsidies begin when people have low incomes but do not quite meet criteria for public assistance. The study sample included respondents who are divorced, separated, widowed, never married as well as married women. Average monthly income of salary and wage earners' households in Korea in the year 2005 was \$39,924. I chose mothers with incomes of \$30,000 or below as the economically depressed target sample and compared them to mothers with incomes of \$30,001 and above. This study focused on families with children between the ages of 3 through 5. To recruit an adequate number of participants, a total of 12 daycare centers were approached and asked to take part in this study. Eleven daycare centers in Kuro-ku (ku means county) and one daycare center in Jung-rang ku in Seoul, participated in the study.

Table 2 displays the number of children (3-5 age) attending each center, and the number and percent of those who responded at each center. Four hundred twenty-four questionnaires were completed at the centers, and five were returned later. A total of 429 questionnaires were collected, and, of those, 21 were excluded due to numerous missing responses. Thus, 408 cases were analyzed.

**Table 2. Numbers of Children Attending and of Mothers Participating in the Study from Each Day Care Center**

Day Care Centers	Children Age 3 - 5 at Each Center	Number of Respondents From Each Center and Percent of Study Population	Response Rate
	n	n(%)	%
Sunny	60	32(7.8)	53.3
Kung-Dong	80	40(9.8)	50.0
Sung-Eun	60	33(8.1)	55.0
Ko-Chuck	60	25(6.1)	41.7
Ku-Min	40	25(6.1)	62.5
Ku-II*	60	40(9.8)	66.7
Ban-Ya	60	30(7.4)	50.0
Sumkineun	60	40(9.8)	66.7
Lotus Flower	60	32(7.8)	53.3
Hwi-Mang*	60	33(8.1)	55.0
Sae Nal	60	38(9.3)	63.3
Yul Mae	80	40(9.8)	50.0
Totals	740	408(100.0)	55.1

Note. \* Indicates centers that serve mid-to-middle-class families.

### **3.3 PROCEDURES FOR THE STUDY**

Careful negotiation of access to the subjects and ethical clearance for the study was undertaken before the clients were invited to participate. The procedures for the primary study were as follows. The researcher called and/or met the directors of the daycare centers located in the targeted area in order to introduce the research, seek their agreement to participate, and their willingness to endorse the study when speaking with their daycare mothers. Once approval to conduct the study had been given by the Institutional Review Board of the University of Pittsburgh and the directors of the daycare centers, a letter was put in the student's "cubbies" or

distributed with other parent take-home material to all families using the day care service. This letter described the study and invited the mothers to participate. Those who agreed to take part in the study were given a survey packet when they came to the daycare center to pick up their children. The principal investigator and assistants distributed the survey packets and collected them once completed. In case some mothers could not take the time to answer the questionnaire on site, the surveyors asked the respondents to put completed surveys in a box in the daycare center office or mailed them back using the stamped return envelope that had been provided.

The survey packets included a cover letter, the questionnaire, and a stamped, self-addressed envelope. The cover letter explained the nature, purpose, and importance of the study, emphasized the value of the mothers' participation, assured her that her participation was voluntary, and that her identity would be confidential as all data would be gathered anonymously. The cover letter explained that the purpose of the study was to investigate the role of life experiences on the lives of families and children and it would take approximately 30 minutes for the participants to complete the questionnaire. The questionnaire was a total of fourteen pages, including the cover letters. Mothers who agreed to participate and who completed the research instruments were given a \$10 E-mart gift certificate as a thank-you. The researcher funded the purchase of the E-mart gift certificates. About two weeks after disseminating survey packets, reminder post cards were distributed in the daycare centers. The reminders thanked the mothers who had already responded and asked the rest to respond. The post cards noted that if respondents needed survey materials, they could contact the researcher, or obtain them from the daycare center office. The primary study was conducted during July and August of 2006.

### **3.4 MEASUREMENT**

#### **3.4.1 Socio-environmental Stress**

Social stress was measured in terms of stressful life events and chronic stressors. Acute and chronic stress were assessed to measure the number and the severity of acute and chronic stressors experienced by participants in the study using the Women's Stress Scale (WSS; Grote et al., in press). The WSS was based on a revision of the African American Women's Stress scale (AWSS) (Watt-Jones, 1990). Responses were elicited from 47 African-American women, aged 23-40, largely working or middle class (36 or 77%), with 11 (or 23%) of lower socioeconomic status. Chronic stressors comprised about half of the scale items and acute stressors comprised the other half. The first version of the WSS contained 160 acute and chronic stressors selected or revised to be relevant to women on low incomes, of different races/ethnicities, and of different sexual orientations. Not only did they rely on the AWSS and another stress scale (The Life Events Questionnaire; Pilkonis, Imber, & Rubinsky, 1985) to derive these stressors, but in a previous study (Grote, Bledsoe, Swartz, & Frank, 2004), they also derived stressors from the qualitative interviews they conducted with 12 women with low incomes who sought prenatal services in the Ob/Gyn clinic of a large, urban hospital. The final version of the WSS included 30 acute and 60 chronic stressor items that were randomly interspersed in the survey.

An acute stressor typically involves time-limited and objective events, such as death, illness, divorce, separation, becoming pregnant, and losing a job. A chronic stressor was defined as an ongoing condition, such as running out of money, being unemployed, or being the only parent (Grote et al., in press). These items are subjectively reported life conditions and situations.



The advantage of using subjective reports of chronic stress is that they allow a shorthand reference to an array of possible objective social realities that would be impractical to measure directly, and more importantly, they typically reflect realities that most would consider objectively stressful.

The WSS produced severity scores of total, acute and chronic stress with adequate reliabilities for the total sample and for the African-American and White subsamples. The WSS has demonstrated good internal consistency at .93 for the total sample, determined by using Cronbach's alpha, .94 for the African-American sample, and .90 for the White subsamples. The validity of the WSS has also been supported through content and construct validation, moderately relating to measures of the Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983) (.84 for the total sample), Psychiatric Epidemiology Research Interview (PERI; Dohrenwend, Kransnoff, Askenasy, & Dohrenwend, 1978) (.84 for the total scale) and Life Orientation Test (LOT; Scheier, Carver, & Bridges, 1994) (.80 for the total scale).

For the present study an attempt was made to include all 90 items from the Women's Stress Scale. However, the researcher's pretest found that some items did not work well in Korean culture. I administered the WSS to five low-income mothers, two daycare teachers, and one daycare director at a daycare center located in a low-income area. The pre-test participants not only responded to the survey items but also gave me feedback on the instrument. "Living in a neighborhood with high crime" and "Living in a drug-ridden neighborhood" were dropped, because the Korean government strictly forbids its citizen from owning a gun and from taking drugs. Drug abuse and gun accidents are not serious problems in Korea as they are in the US. The item, "Trying to get credit" was also dropped because if a Korean has a job or has an employed husband, he/she can get credit easily. Some other WSS items were also modified.

“Unable to afford a car” and “Car trouble” were combined because, in Korea, most low-income people use public transportation as they do not have their own car. “Unable to afford basic necessities for yourself or your household” and “Being unemployed” were dropped as they overlapped with other items.

The daycare center staff (one director and two teachers) who participated in the preliminary interviews agreed with omitting these six items. The researcher also added additional items to cover issues that were reported in the preliminary interviews with the mothers. These items include, “Your job often leaves you feeling both mentally and physically tired”, “Your child does not do well enough at school”, and “Too much is expected of you by others.” I’m working on translating my scale in Korean language. I found that there are already Korean version scales of CES-D and PSI.

Checking the articles of the Korean researchers who have used the CES-D and the PSI, I found that they used back-translated versions of these instruments. I translated my scale into Korean for the study. I received advice from a specialist in Korean regarding my Korean-versions of the women’s stress and parenting efficacy scales. The specialist pointed out the discrepancies between my Korean translation and the original scales, and I retranslated and reworded those items.

A total of 87 items were used for the present study which I have divided into two subscales (acute/chronic stressors); 30 acute stressor items and 57 chronic stressor items were randomly interspersed within each subscale in this study. Under Dr. Grote’s guidance, I mixed the order of the WSS items.

I also developed a different rating metric. Participants were asked whether or not they had experienced a particular event during the previous 12 months. In addition, they were asked

to rate the amount of severity they perceived they had in relation to each acute and chronic stressors they experienced (0= *Did Not Happen to Me*; 1= *Slightly Stressful*; 2= *Somewhat Stressful*; 3= *Quite Stressful*; 4= *Very Stressful*; and 5= *Extremely Stressful*). Scoring was reported in two ways: the number of acute and chronic stressors experienced by participants in the study, as well as the mean severity of acute and chronic stress experienced. Two separate scores were calculated to provide a mean severity score for acute and chronic stressors; the higher scores for acute stress indicated more acute stress and higher scores for chronic stress indicated more chronic stress. Severity of stress showed adequate reliabilities for the total sample and for the low-income and middle-income subsamples, .95, .96, and .93, respectively.

### **3.4.2 Parental Stress**

The *Parenting Stress Index/Short Form (PSI/SF)* (Abidin, 1995) is a 36-item response assessment that identifies three subscales: parental distress (PD), parent-child dysfunctional interaction (P-CDI), and difficult child (DC). The PSI, designed to measure the magnitude of stress in the parent-child relationship, gauges stress attributed to child characteristics, such as adaptability, acceptability, hyperactivity, and mood, as well as parent characteristics, such as depression, attachment, sense of competence, and relationship with spouse (Benner, 1992). Sample questions include “Since having this child I have been unable to do new and different things.” and “My child turned out to be more of a problem than I had expected”.

For the present study an attempt was made to include all items from the PSI/SF. However, some items were not specific to parenting. For example, the following items were dropped because they addressed depression rather than parenting specific stress items: “I am unhappy with the last purchase of clothing I made for myself”, “There are quite a few things that

bother me about my life ”, “I feel alone and without friends” and “I don't enjoy things as I used to”. In addition, the item, “I feel that I am not very good at being a parent.” was dropped because it is a sense of competence item. The items, “I have found that getting my child to do something or stop doing something is much harder than I expected” and “Count and circle the number of things which your child does that bother you.” were dropped out of concern they might interrupt the structure of the grid set.

The respondent responded to each item by circling SD (*strongly disagree*), D (*disagree*), NS (*not sure*), A (*agree*), or SA (*strongly agree*). Scoring was accomplished by first scoring, items 1, 2, 3, 6, and 8 and labeling the sum as “Defensive Responding.” The Defensive Responding score was not to be included in the calculation of Total Stress. Three positively-worded items (3, 10, and 26) were reverse scored. An individual’s PSI/SF score was the sum of all 24 items to calculate “Total Parental Stress.” The higher scores of parental stress indicated more parental stress.

Test-retest reliability coefficients were .84 for Total Stress, .85 for PD, .68 for P-CDI and .78 for DC, respectively. The PSI has been validated in transcultural research with Chinese, Italian, Portuguese, Latin American Hispanic, and French Canadian (Abidin, 1995). Total Stress on the full-length PSI correlated .94 with PSI/SF Total Stress. As it is a direct derivative of the full-length PSI, it is likely that it will share in the validity of the full-length PSI. Ethier et al. (1993) found that parental stress for both negligent and control group mothers was correlated with mothers’ depression, as measured by the BDI (Abidin, 1995). Holden et al. (1989) examined the relationship between the Child Abuse Potential Inventory (CAP) and the PSI across four groups of maltreating parents (Abidin, 1995). Alpha coefficients for the PSI/SF

indicate adequate reliabilities for the total sample and the two subsamples, .89, .89, and .89, respectively.

### **3.4.3 Maternal Depression**

The Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977) was used to assess depressed mood among the participants. The CES-D is a 20-item self-report inventory designed to measure depressive symptomatology in the general population. Respondents rated how often they had experienced symptoms within the past week using a 4-point scale. Respondents indicated how frequently statements like “I had crying spells” and “I had trouble keeping my mind on what I was doing” described them on a scale ranging from 1 (rarely or none of the time) to 3 (most or all of the time). Four positively-worded items (4, 8, 12, and 16) were reverse scored and responses were summed to create scale scores. An individual’s CES-D score was the sum of all 20 items after the four positively-worded items were scored in reverse. The possible range of CES-D scores is 0 to 60. Higher scores indicate more depressive symptoms. A score of 16 or higher on the CES-D indicates a clinically significant level of depression (Radloff, 1977). Psychometric studies have discovered acceptable convergent and discriminant validity for the CES-D (Doerfler et al., 1988; Orme, Reis, & Herz, 1986), and the measure has demonstrated adequate validity and factor structure with diverse cultural groups (Pretorius, 1991). The internal consistency reliability (Cronbach’s alpha) of the CES-D in previous research ranged from .84 to .90 (Radloff, 1977). A test-retest reliability coefficient of .54 was attained after a six-month time interval (Nordgren, 1995). The alpha coefficients for the CES-D indicate excellent reliability for the total sample and the two subsamples, .93, .93, and .91, respectively.

#### **3.4.4 Parenting Self-efficacy**

Parenting efficacy was assessed using a 34-item Parenting Efficacy Scale developed by Duke, Allen, and Halverson (1996). The measure consists of three subscales that assess parents' beliefs in their efficacy concerning education, communication, and general efficacy. Eight negatively-worded items (3, 7, 10, 16, 17, 19, 22, and 31) are reverse scored and an individual's parenting efficacy score was the sum of all 34 items after the eight negatively-worded items are scored in reverse. Each item is rated on a 5-point scale ranging from 1 (*never*) to 5 (*always*). Sample items include: "I am able to teach my child the things that will help him/her in life" and "I am not very good at communicating my feelings to my child". This measure produced a total score. Cronbach's alpha for the subscales' sample of rural African American families ranged from .66 to .74 (Brody et al., 1999). The alpha coefficients for the Parenting Efficacy Scale indicate excellent reliability for the total sample and the two subsamples, .93, .93, and .93, respectively.

#### **3.4.5 Social Support**

Sources of Social Support (SOSS; Koeske & Koeske, 2002) scale was used to measure emotional and practical social support from various sources, such as spouse/partner, parents, friends, employer, co-workers, therapist/counselor/case manager, and people at church or synagogue.

The scale is a 5-point scale, ranging from 1 (*None At All*) to 5 (*A Great Deal*). NAs were dealt with as missing values. Scores were summed across the 11 sources to obtain practical support and emotional support and calculated into a mean. An overall support score was

obtained by summing the emotional support and the practical support scores and calculated them into a mean. Thus, the range for overall score is 1-5.

The SOSS was related to the Inventory of Social Supportive Behaviors (ISSB; Barrera, 1981) which measures social support ( $r=.49$ ,  $p<.001$ ) (Koeske & Koeske, 2002). Additionally, the strength of this scale is the evidence for theoretical construct validity of the SOSS measure. Koeske and Koeske (2002) confirmed that the SOSS could be used to measure direct and interactive effects of social support in addressing stress theoretical issues. For example, they found significant buffering interactions of SOSS measured support in the relationship between stress and outcomes such as life satisfaction, burnout, and mental health symptoms.

#### **3.4.6 Demographic Information**

This section was designed to obtain general descriptive information about the respondents to include household income, father's/mother's age, education and jobs, marital status, family structure/size, number of children, and the age of the youngest child. These variables were used to provide the specific descriptive characteristics of the sample.

## **4.0 RESULTS**

### **4.1 DEMOGRAPHICS**

Demographic characteristics of participants enrolled in the study are summarized in Table 3. The ages of the mother ranged from 23 to 50 years of age, with a mean age of 34.6 years. Most (93.6%) were currently married, and living with an average of two children and another adult in the home. One hundred nineteen (29.2%) of the participating families had one child and 289 families (79.8%) had more than one child.

One hundred eighty-four mothers (45.5%) had at least a high school education and 201 of mothers (49.8%) had college or university education. Over half of mothers (62.8%) were currently employed with pay. Over half of fathers (62.0%) had some college or university education. Two hundred fifty-four families (62.7%) had monthly incomes less than the 2006 monthly income in Korea of \$3,125. Twenty-one respondent families (5.1%) were enrolled in public assistance and two hundred respondent families (49.0%) were receiving childcare subsidies.

Low-income women had lower education levels ( $\chi^2(1, n=404)=.39, p<.001$ ), were more likely to be full-time housewives ( $\chi^2(1, n=408)=7.48, p<.01$ ), and were more likely to be single-parent mothers ( $\chi^2(1, n=405)=.18, p<.05$ ) than middle income women. Low-income fathers were more likely to be classified as sales, clerical, and skilled/unskilled labor than middle-income



fathers who were more likely to be classified as professional, manager/administrator  
( $\chi^2(1, n=388)=.31, p<.001$ ).

**Table 3. Demographic Characteristics of Participants Enrolled in Study**

<b>Variable</b>	<b>Total (n=408)</b>	<b>Low (n=254)</b>	<b>Middle (n=151)</b>
<b>Mean Age<sup>a</sup></b>	34.6(±3.9)	34.7(±4.1)	34.4(±3.7)
<b>Marital Status*</b>			
Never married	.7%(n=3)	.8%(n=2)	.7%(n=1)
Married	93.6%(n=379)	90.6%(n=230)	98.7%(n=149)
Separated	1.5%(n=6)	2.4%(n=6)	0%(n=0)
Divorced	3.7%(n=15)	5.9%(n=15)	0%(n=0)
Cohabiting	.5%(n=2)	.4%(n=1)	.7%(n=1)
<b>Employment**</b>			
Employed with Pay	62.8%(n=253)	57.7%(n=146)	71.3%(n=107)
Full-time Housewife	37.2%(n=150)	42.3%(n=107)	28.7%(n=43)
<b>Education***</b>			
No education	.2%(n=1)	.4%(n=1)	0%(n=0)
Graduated from Elementary School	.2%(n=1)	0%(n=0)	.7%(n=1)
Graduated from Middle School	1.5%(n=6)	2.4%(n=6)	0%(n=0)
Graduated from High School	45.5%(n=184)	59.1%(n=150)	22.7%(n=34)
College or University Degree	49.8%(n=201)	36.6%(n=93)	72.0%(n=108)
Master's Degree or a Ph.D.	2.7%(n=11)	1.6%(n=4)	4.7%(n=7)
<b>Job of Spouse***</b>			
No Job	.6%(n=2)	.8%(n=2)	0%(n=0)
Professional	21.1%(n=82)	16.0%(n=38)	29.3%(n=44)
Manager/Administrator	31.7%(n=123)	26.1%(n=62)	40.7%(n=61)
Sales	8.8%(n=34)	11.3%(n=27)	4.7%(n=7)
Clerical	12.1%(n=47)	13.4%(n=32)	10.0%(n=15)
Skilled/Unskilled labor	18.3%(n=71)	24.4%(n=58)	8.7%(n=13)
Student	.5%(n=2)	.8%(n=2)	0%(n=0)
Other	7.0%(n=27)	7.1%(n=17)	6.7%(n=10)
<b>Children Home<sup>a</sup></b> (range=1-4)	1.9(±.7)	1.9(±.7)	1.9(±.7)
<b>Children(0-5 age) Home<sup>a</sup></b> (range=1-4)	1.2(±.5)	1.2(±.5)	1.2(±.5)
<b>Adults Home<sup>a</sup></b> (range=0-7)	2.2(±.8)	2.2(±.8)	2.3(±.8)

Note. <sup>a</sup> = Mean and standard deviation are presented instead of frequency and percentage  
Income group differences on the study variables are signified by +p < .10; \*p < .05; \*\*p < .01; \*\*\*p < .001.

## 4.2 DESCRIPTIVE STATISTICS FOR THE STUDY VARIABLES

### *Descriptive Statistics for the Study Variables*

Table 4 shows that most women in the sample were not clinically depressed. However, 33.6% (or 137) of the women in the sample scored 16 or above on the CES-D, indicating probable major depression. Low-income women reported higher levels of depressive symptoms (15.8) than did middle-income women (10.4) ( $t(403)=5.420, p<.001$ ). It was also observed that, on average, more low-income women (38.6% or 98) scored at or above the cutoff for clinical depression than did middle-income women (25.8% or 39) ( $\chi^2(1, n=405)=6.9, p<.01$ ). These high rates of probable clinical depression (38.6%) in our low-income sample contrasted sharply with the lower rates (25.8%) found in our middle-income sample.

On the Women's Stress Scale (WSS), women in our sample indicated that they had experienced an average of 3.9 acute stressors and 18.2 chronic stressors. As predicted, low-income women reported a greater number of acute stressors ( $t(403)=2.65, p<.01$ ) and chronic stressors ( $t(403)=3.63, p<.001$ ) than middle-income women. Women in the sample reported experiencing a moderate degree of both acute and chronic stress. As predicted, low-income women perceived more acute stress ( $t(403)=4.031, p<.001$ ) and chronic stress ( $t(403)=5.230, p<.001$ ) than middle-income women.

Regarding the other variables in the study, women in the sample reported a moderate amount of parental stress, with low-income women tending to perceive more parental stress than middle-income women ( $t(403)=2.298, p<.05$ ). However, a majority of the respondents (85.5%) reported that they had felt stress from dealing with their role as a parent during the past couple of months.

The women were somewhat positive in parenting self-efficacy although middle-income women did report higher levels than low-income women ( $t(403)=-2.799$ ,  $p<.01$ ). Low-income women also reported lower levels of emotional support ( $t(388)=-2.597$ ,  $p<.05$ ) and practical support ( $t(388)=-2.103$ ,  $p<.05$ ) than did middle-income women.

**Table 1. Descriptive Statistics for the Study Variables**

<b>Variable</b>	<b>Total (n=408)</b>	<b>Low (n=254)</b>	<b>Middle (n=151)</b>	<i>t</i>	<i>Skewness</i>	<i>Kurtosis</i>
<b>CES-D***</b>	13.7(±10.00)	15.8(±10.63)	10.4(±7.81)	5.420	.06 <sup>a</sup>	-.67
<b># Total Stressors(WSS)***</b>	22.0(±14.31)	24.1(±14.90)	18.7(±12.72)	3.720	.74	.45
<b># Acute Stressors**</b>	3.9(±3.96)	4.3(±4.00)	3.2(±3.83)	2.650	2.36	8.42
<b># Chronic Stressors***</b>	18.2(±11.74)	19.8(±12.31)	15.5(±10.28)	3.630	.57	-.33
<b>Severity of Total Stress(WSS)***</b>	.5(±.45)	.6(±.50)	.4(±.28)	5.160	-.32 <sup>a</sup>	-.48
Severity of Acute Stress***	.3(±.40)	.4(±.46)	.2(±.27)	4.031	.05	-1.3
Severity of Chronic Stress***	.7(±.56)	.8(±.63)	.5(±.37)	5.230	-.01 <sup>a</sup>	-.66
<b>Parental Stress(PSI/SF)*</b>	2.1(±.54)	2.2(±.56)	2.1(±.50)	2.298	.67	.68
<b>Global Parenting Stress</b>	2.6(±1.1)	2.6(±1.2)	2.5(±.9)	1.161	.38	.45
<b>Parenting Self-Efficacy**</b>	3.0(±.37)	2.9(±.37)	3.1(±.34)	-2.799	-.48	.52
<b>Total Support(SOSS)*</b>	2.2(±.63)	2.2(±.61)	2.3(±.65)	-2.557	.59	.28
Emotional Support*	2.4(±.73)	2.4(±.71)	2.5(±.73)	-2.597	.43	-.18
Practical Support*	2.0(±.63)	2.0(±.62)	2.1(±.65)	-2.103	.94	.99

Note. Standard deviations are in parentheses. T = Total Sample. Low = Low-income women. Mid = Middle-income women.

<sup>a</sup> = Skewness is transformed version.

CES-D = Center for Epidemiological Studies Depression Scale ( $\geq 16$  = probable clinical depression).

WSS = Women's Stress Scale

Number of acute (0-30) and chronic stressors: (0-57).

Severity of acute and chronic stress: 0 (did not happen to me), 1 (not at all or slightly stressful), 2 (somewhat stressful), 3 (quite stressful), 4 (very stressful), 5 (extremely stressful).

PSI/SF = Parenting Stress Index/Short Form: 1 (strongly disagree), 2 (disagree), 3 (not sure), 4 (agree), 5 (strongly agree).

Global Parenting Stress = 0 (none), 1 (hardly any at all), 2 (very little), 3 (some), 4 (a fair amount), 5 (quite a lot), 6 (a tremendous amount).

Parenting Efficacy Scale = 1 (never), 2 (some of the time), 3 (most of the time), 4 (always).

SOSS = Sources of Social Support: 1 (none at all), 2 (a little), 3 (a fair amount), 4 (quite a bit), 5 (a great deal).

Income group differences on the study variables are signified by † $p < .10$ ; \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

*Descriptive statistics for the socio-environmental stress*

Table 5 presents the percentage of experienced acute stress for the total sample and for the low- and middle-income groups. The four most frequently experienced acute stressors were: family member(s) is ill/injured (51.9%), income decreased/loss of benefits/sanctioned by welfare (45.4%), changes of residence/moved or moving to different housing (28.7%), and got into debt beyond means of repayment (25.7%). The women rated the very same four acute stressors as also the most stressful ( $\geq .67$  on a 5-point Likert scale). The percentage of experienced acute stress related to financial hardship and marital problems reported by low-income mothers was significantly more than that reported by middle-income mothers.

**Table 5. Frequency of Experienced Acute Stress**

Stress	Total (n=405) %	Low (n=254) %	Middle (n=151) %	<i>t</i>
<b>Acute Stress</b>				
1. Family member is ill/injured (Item #1)	51.9	51.6	52.3	-.14
2. Income decreased/loss of benefits/sanctioned by welfare (Item #28)	45.4	57.1	25.8	6.40***
3. Changes in residence/moved or moving to different housing (Item #30)	28.7	32.0	23.2	1.90†
4. Got into debt beyond means of repayment (Item #27)	25.7	33.1	13.3	4.52***
5. Had a medical test or need to go for a medical test (Item #19)	25.2	24.0	27.2	-.70
6. Needing to go to the hospital for surgery or other treatment (Item #18)	24.0	24.4	23.2	.28
7. Marital discord (Item #9)	21.0	20.9	21.2	-.08
8. Friends is ill/injured (Item #3)	14.1	13.8	14.6	-.22
9. Death of a friend or someone in your community/people you know (Item #25)	13.6	13.8	13.3	.15
10. Turned down for help from someone you've helped before (Item #6)	13.1	15.8	8.6	2.07*
11. A friend betrays you (Item #4)	12.4	13.8	14.6	-.22
12. Depended on someone who didn't come through (Item #7)	11.1	11.4	10.6	.25
13. Had an abortion (Item #16)	9.9	12.6	5.3	2.39*
14. Death of a parent (Item #21)	9.7	9.9	9.3	.20
15. Spouse loses his job (Item #13)	8.9	12.2	3.3	3.07**
16. Lost your job (Item #26)	8.6	11.0	4.6	2.22*
17. Pregnant (Item #14)	7.9	8.3	7.3	.35
18. Friendship breaks up (Item #5)	7.9	8.7	6.6	.73
19. Had a child (Item #15)	7.2	6.3	8.6	-.87
20. You were the victim of a crime against your person (e.g., someone hurt me, threatened me, or forcibly stole from me something that was mine)	5.7	6.7	4.0	1.14
21. Failed school or training program (Item #29)	4.9	4.7	5.3	-.26
22. Death of a family member (not parents) (Item #22)	4.9	4.3	6.0	-.73
23. Getting a Divorce (Item #11)	4.7	6.7	1.3	2.48*
24. Getting married/newly married (Item #8)	4.5	5.1	3.3	.84
25. Breaking up with spouse (Item #10)	4.4	6.3	1.3	2.36*
26. Had a miscarriage, stillbirth, or were unable to conceive (Item #17)	3.7	3.9	3.3	.32
27. Spouse is arrested, in jail, in trouble with the law (Item #12)	2.2	2.4	2.0	.25
28. Family member is arrested, in jail, in trouble with the law (Item #2)	1.7	2.0	1.3	.48
29. Spouse's death (Item #24)	1.5	1.6	1.3	.20
30. Death of your child (Item #23)	1.0	1.2	1.0	.51

Income group differences on the study variables are signified by † $p < .10$ ; \* $p < .05$ ; \*\* $p < .01$ ;

\*\*\* $p < .001$ .

Table 6 presents the percentage of experienced chronic stress for the total sample and for the low- and middle-income groups. The four most frequently experienced chronic stressors by all the women were: not enough time for yourself (72.4%), housework (71.4%), getting children ready for school in the morning (67.7), and unsure if the way you are raising your child is best for the child (67.4). The items related to health/well-being-self and parenting were reported to be the highest among mothers' chronic stress. The women rated the following four chronic stressors as the most stressful ( $\geq 1.42$  on a 5-point Likert scale): not enough time for yourself, housework, unable to buy a home and not enough time to spend with your child or children. Low-income mothers, reported experiencing significantly more chronic stress on the items of financial/transportation and housing/neighborhood dimension than did middle-income mothers. Only two stressors "Not enough time for yourself" ( $t(403) = -2.25, p < .05$ ) and "Being a mother and working (and/or going to school)" ( $t(403) = -2.30, p < .05$ ) were experienced more frequently by middle-income women than low-income women.

In Appendix B, the stressors that were experienced more frequently by low-income women than middle-income women are marked in bold.



**Table 6. Frequency of Experienced Chronic Stress**

<b>Stress</b>	<b>Total (n=405) %</b>	<b>Low (n=254) %</b>	<b>Middle (n=151) %</b>	<b>t</b>
<b>Chronic Stress</b>				
1. Not enough time for yourself (Item #56)	72.4	68.5	78.8	-2.25*
2. Housework (Item #55)	71.4	69.3	74.8	-1.19
3. Getting children ready for school in the morning (Item #48)	67.7	66.9	68.9	-.40
4. Unsure if the way you are raising your child is best for the child (Item #49)	67.4	69.3	64.2	1.05
5. Not enough time to spend with your child or children (Item #47)	66.7	64.2	70.9	-1.38
6. Having to tell your child something over and over (Item #46)	61.0	64.2	55.6	1.71†
7. Being a mother and working (and/or going to school) (Item #43)	58.3	53.9	65.6	-2.30*
8. Living in a neighborhood that is not safe or good for raising children (Item #4)	52.6	51.6	54.3	-.53
9. Unable to buy a home (Item #15)	52.1	61.4	36.4	5.01***
10. Tying to make ends meet/running out of money (Item #6)	50.4	63.8	27.8	7.45***
11. Being overweight (Item #51)	49.6	52.8	44.4	1.63
12. Your job leaves you feeling both mentally and physically tired (Item #22)	49.4	48.4	51.0	-.50
13. Unable to afford dinner out, see a movie, or spend money on recreation (Item #13)	46.9	55.5	32.5	4.60***
14. Can't afford things your kid(s) want (Item #9)	43.2	54.2	24.7	6.02***
15. Living in housing in need of repairs (Item #3)	41.5	54.3	19.9	7.22***
16. Can't afford to replace worn out furniture (Item #11)	40.7	50.0	25.2	5.06***
17. Unsure you can pay monthly payments for living in an apartment and payments for water, electricity, gas or telephone services (Item #14)	37.8	50.0	17.2	6.95***
18. Living in overcrowded housing (Item #1)	37.3	44.5	25.2	3.95***
19. Living in an excessively noisy neighborhood (Item #5)	37.3	16.9	13.3	.99
20. Argument(s) with your spouse (Item #36)	36.5	37.4	35.1	.46
21. Conflict with family member/in-law (Item #28)	36.3	40.0	31.8	1.46
22. Argument(s) with family member(s) (Item #25)	36.3	37.4	34.4	.60
23. Family member with personal/emotional/financial problems (Item #6)	34.3	39.4	25.8	2.80**
24. Being ill and having a health problem (Item #53)	33.8	36.6	29.1	1.54
25. Can't afford health care costs (Item #12)	32.9	35.6	28.5	1.47
26. Your spouse is jealous/possessive (Item #41)	32.8	33.5	31.8	.35
27. Your child does not do well enough at school (Item #50)	32.7	35.0	28.7	1.32

Income group differences on the study variables are signified by †p < .10; \*p < .05; \*\*p < .01; \*\*\*p < .001.

Stress	Total (n=405) %	Low (n=254) %	Middle (n=151) %	t
<b>Chronic Stress</b>				
28. Unable to afford a car or car trouble (Item #18)	31.2	33.2	27.8	1.13
29. Family member drinks too much (Item #27)	30.1	31.1	30.5	.13
30. Spouse doesn't get along with your friend (Item #34)	30.1	33.5	24.5	1.91†
31. Co-workers don't do their share of the work (Item #21)	29.1	29.1	29.1	-.001
32. Being approached/spoken to disrespectfully by someone (Item #54)	28.9	33.9	20.5	2.88**
33. Being on welfare (Item #16)	28.5	42.1	5.3	8.59***
34. Not having a satisfying sexual relationship (Item #35)	27.2	25.6	29.8	-.92
35. Too much is expected of you by others (Item #57)	26.9	24.8	30.5	-1.24
36. Spouse spent money in ways you thought unwise (Item #38)	26.4	25.6	27.8	-.49
37. Argument(s) with friend(s)/acquaintance(s) (Item #30)	26.2	25.6	27.2	-.35
38. Being behind in bills (Item #10)	25.2	29.9	17.2	2.87*
39. Involved with a partner who doesn't contribute financially (Item #37)	24.8	33.1	10.7	5.20***
40. Being unable to afford your own place (Item #8)	24.7	30.7	14.6	3.69***
41. Friend with emotional/financial problems (Item #29)	19.0	20.9	15.9	1.23
42. Trying to find a job (Item #23)	18.8	25.2	8.0	4.39***
43. Bill collectors harassing you (Item #7)	18.8	25.2	8.0	4.39***
44. Applying for social service aid or welfare (Item #17)	17.0	20.9	10.6	2.68**
45. Problems with buses/public transportation or can't afford bus fare/pass (Item #19)	15.6	16.9	13.3	.99
46. Chronic pain and/or disability (Item #52)	13.8	15.8	10.6	1.45
47. Your spouse lied to you (Item #33)	12.9	14.2	10.6	1.05
48. Trying to get landlord to make repairs (Item #2)	12.6	16.6	6.0	3.15**
49. Spouse demands or asks to borrow money from you (Item #40)	8.9	8.7	9.3	-.20
50. Trying to find a dependable babysitter (Item #44)	8.9	7.1	11.9	-1.64
51. Being in school (but not working) (Item #20)	8.9	7.5	11.3	-1.29
52. Being torn between two romantic partners (Item #32)	5.9	7.5	3.3	1.72†
53. Trying to find romantic/sexual companionship (Item #39)	5.7	4.3	6.0	-1.08
54. Being the only parent (Item #45)	4.7	6.7	1.3	2.48*
55. Spouse is romantically or sexually engaged with another person (Item #42)	4.0	5.1	2.0	1.57
56. Friend drinks too much or is involved with drugs (Item #31)	2.7	3.2	2.0	.70
57. Family member is being abused (Item #24)	2.5	2.8	2.0	.48

Income group differences on the study variables are signified by †p < .10; \*p < .05; \*\*p < .01; \*\*\*p < .001.

### 4.3 BIVARIATE ANALYSIS

#### *Primary Variables*

Table 7 shows the correlations among the study variables in the sample. I predicted and found, using the WSS, that the frequency and severity of total stress, the frequency and severity of acute stress and the frequency and severity of chronic stress were negatively associated with the strength of parenting self-efficacy (hypothesis 1 & 2: both acute and chronic stress will be negatively related to parenting self-efficacy) ( $r$ s ranged from -.22 to -.30). Bivariate analysis showed that the severity of the chronic stressors related more to parenting self-efficacy than the frequency of those same stressors. Parental stress was also highly correlated with parenting self-efficacy (hypothesis 3: parental stress will be negatively related to parenting self-efficacy) ( $r = -.50$ ,  $p < .001$ ). In addition, the study confirmed hypothesis 7 which predicted that the severity of depressive symptoms would be related to parenting self-efficacy: the correlation for parenting self-efficacy and the severity of depressive symptoms was  $-.49$  ( $p < .001$ ).

Bivariate analysis showed that the severity of total, acute and chronic stress, as measured by the WSS, was more related to the severity of depressive symptoms than was the frequency of total, acute and chronic stress. As expected, it was observed that the frequency and severity of total, acute, and chronic stress were correlated with the severity of depressive symptoms on the CES-D (hypothesis 4 & 5: both acute and chronic stress will be positively related to maternal depression) ( $r$ s ranged from .35 to .53). Significant relationships were found between parental stress and depressive symptoms (hypothesis 6: parental stress will be positively related to maternal depression) ( $r = .50$ ,  $p < .001$ ). We can say that the greater parental stress, the greater severity of depressive symptoms.

Table 7. Correlations among the Stress Variables, Depression, and Parenting Self-efficacy

Variables	1	2	3	3a	3b	4	4a	4b	5
1.Parenting Self-Efficacy	-								
2. Depression	-.49	-							
3.#Total Stress	-.29	.46	-						
3a.#Acute Stressor	-.22	.35	.73	-					
3b.#Chronic Stressor	-.27	.44	.97	.55	-				
4. Severity of Total Stress	-.30	.53	.92	.74	.87	-			
4a. Severity of Acute Stress	-.22	.36	.72	.82	.60	.81	-		
4b. Severity of Chronic Stress	-.30	.52	.91	.55	.92	.95	.65	-	
5. Parental Stress	-.50	.50	.33	.26	.31	.38	.27	.38	-

Note. All correlations were significant on significance level .001 except correlation between parental stress and severity of acute stress ( $p < .01$ ).

† $p < .10$  \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

### *Bivariate Analysis with Stress Variables*

The tests utilized three measures of stress. Bivariate analysis was also completed with the frequency and severity of acute stress, the frequency and severity of chronic stress and parental stress.

The frequency of acute stress was related to the frequency of chronic stress ( $r = .55$ ,  $p < .001$ ), and the severity of parental stress ( $r = .26$ ,  $p < .001$ ). The frequency of chronic stress was related to the severity of parental stress ( $r = .31$ ,  $p < .001$ ). The severity of acute stress was related to the severity of chronic stress ( $r = .65$ ,  $p < .001$ ), and the severity of parental stress ( $r = .27$ ,  $p < .001$ ). The severity of chronic stress was related to the severity of parental stress ( $r = .38$ ,  $p < .001$ ).

The frequency of acute stress was related to the severity of acute stress ( $r=.82$ ,  $p<.001$ ), and the severity of chronic stress ( $r=.55$ ,  $p<.001$ ). The frequency of chronic stress was related to the severity of acute stress ( $r=.60$ ,  $p<.001$ ), and the severity of chronic stress ( $r=.92$ ,  $p<.001$ ).

### *Bivariate Analysis of Control and Secondary Variables*

A bivariate analysis was conducted using the control variables of monthly income, marital status, mother's age, mother's education, mother's job status, and total support and the critical variables of depression, severity of acute and chronic stress, parental stress, and parenting self-efficacy. The significant results of this analysis are presented in Table 8. Monthly income was significantly related to parenting self-efficacy ( $r=.15$ ,  $p<.01$ ), the severity of depression ( $r=-.30$ ,  $p<.001$ ), the severity of acute stress ( $r=-.22$ ,  $p<.001$ ), the severity of chronic stress ( $r=-.26$ ,  $p<.001$ ), and the severity of parental stress ( $r=-.15$ ,  $p<.01$ ). Higher monthly income was related to less stress and a greater belief in parenting self-efficacy. Mother's age was not significantly related to any of the critical variables. Mother's education was significantly related to parenting self-efficacy ( $r=.16$ ,  $p<.01$ ), the severity of depression ( $r=-.27$ ,  $p<.001$ ), the severity of acute stress ( $r=-.15$ ,  $p<.01$ ), the severity of chronic stress ( $r=-.17$ ,  $p<.001$ ), and the severity of parental stress ( $r=-.10$ ,  $p<.05$ ). Higher education related to less stress and greater parenting efficacy. Mother's job status was related to the severity of depression ( $r=-.10$ ,  $p<.05$ ), and the severity of parental stress ( $r=-.18$ ,  $p<.001$ ). Those who were full-time housewives were most likely to report higher levels of depressive symptoms and parental stress. Marital status was significantly related to the severity of depression ( $r=-.12$ ,  $p<.05$ ) and the severity of chronic stress ( $r=-.16$ ,  $p<.01$ ). Those who were married were more likely to show less depression and less chronic stress. Total support was significantly related to parenting self-efficacy ( $r=.26$ ,  $p<.001$ ), the

severity of depression ( $r = -.31$ ,  $p < .001$ ), the severity of acute stress ( $r = -.13$ ,  $p < .01$ ), the severity of chronic stress ( $r = -.23$ ,  $p < .001$ ), and the severity of parental stress ( $r = -.32$ ,  $p < .001$ ). These correlations supported the plan to control for income, mother's education, mother's job status and total support in the a priori path models.

**Table 8. Pearson Correlations of Control Variables with Critical Variables**

	Income	Mother's Age	Mother's Education	Mother's Job Status	Marital Status	Total Support
Parenting Self-Efficacy	.15**	.05	.16**	-.01	.10	.26***
Depression	-.30***	.04	-.27**	-.10*	-.12*	-.31***
Severity of Total Stress	-.30***	.04	-.19***	.05	-.19***	-.23***
Severity of Acute Stress	-.22***	.08	-.15**	.01	-.11	-.13**
Severity of Chronic Stress	-.26***	.01	-.17***	.07	-.16**	-.24***
Parental Stress	-.15**	.06	-.10*	-.18***	-.08	-.32***

Note. Marital status = 1 (single), 2 (couple)

\* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

#### **4.4 TESTS OF THE MEDIATING EFFECT OF MATERNAL DEPRESSION**

In the path model, the severity of acute stress, the severity of chronic stress and the severity of parental stress were hypothesized to increase the likelihood of maternal depression, which in turn would reduce parenting self-efficacy. The direct effects of IV to the DV were found for all measures of stress to parenting efficacy: for the relationships between acute stress and parenting self-efficacy ( $r = -.22$ ,  $p < .001$ ), chronic stress and parenting self-efficacy ( $r = -.30$ ,  $p < .001$ ) and parental stress and parenting self-efficacy ( $r = -.51$ ,  $p < .001$ ). To test this model, I

conducted nine path analyses in which I compared the low-income mothers with the middle-income mothers. The analyses included tests of the whole sample, the low-income group and the middle-income group. The results of the nine path analyses are presented in figures 2, 3, 4, 5, 6, 7, 8, 9, and 10. Income, mother's education, mother's job status, marital status, and total support were used as controls in each path model. Controls were based on the criterion that a control variable is significantly correlated with a critical variable and the relationship is larger than .15. Mother's age were excluded in control. Pearson correlations and the beta coefficients were both reported for the relationships between acute stress and parenting self-efficacy, chronic stress and parenting self-efficacy and parental stress and parenting self-efficacy. The model implies that the beta coefficients would be smaller than the anticipated significant Pearson correlations. The F for the equation to predict parenting self-efficacy was 22.66 ( $p < .001$ ). Thirty five percent of the variance in the dependent variable was explained by the model. For the low-income group, the F for the equation to predict parenting self-efficacy was 12.30 ( $p < .001$ ). Thirty-three percent of the variance in the dependent variable was explained by the model. For the middle-income group, the F for the equation to predict parenting self-efficacy was 13.18 ( $p < .001$ ). Forty-three percent of the variance in the dependent variable was explained by the model. Table 9 summarizes the explained variance in the models.

Table 9. Percentage of Variance in Prediction of Maternal Depression in Parenting Self-efficacy

	F	Rsquare	Significance
Predicted Model			
Maternal Depression			
Whole Sample	22.66	.35	.000
Low-income Group	12.30	.33	.000
Middle-income Group	13.18	.43	.000

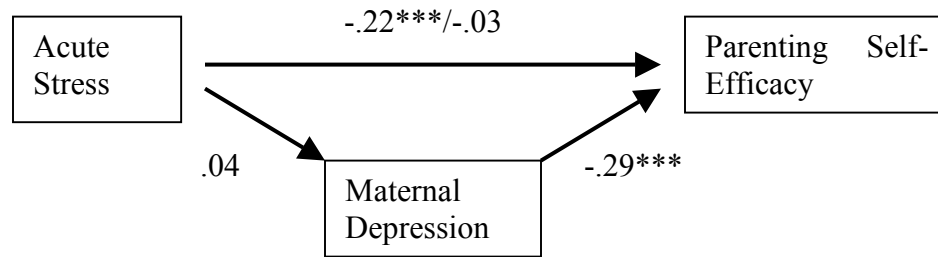
*Whole Sample.* Figure 2 shows that the path analysis for hypothesis 4 was not supported because acute stress did not relate to maternal depression.

The path analysis for hypotheses 5 and 7, as shown in Figure 3, confirmed a significant inverse relationship ( $r=-.30$ ,  $p<.001$ ) between chronic stress and parenting self-efficacy. As predicted, chronic stress was significantly related to maternal depression ( $\beta=.31$ ,  $p<.001$ ), and maternal depression was significantly related to the dependent variable ( $\beta=-.29$ ,  $p<.001$ ). After the variable of maternal depression was entered, the relationship between chronic stress and parenting self-efficacy was no longer significant. This satisfies full mediation assumptions.

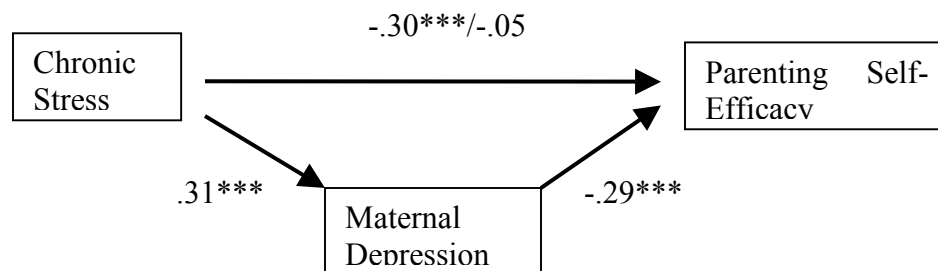
Figure 4 shows the path analysis for the question, "Does maternal depression mediate the relationship between parental stress and parenting self-efficacy?" In this model test, the partial mediation model was supported. Parental stress was significantly related to maternal depression. Hypothesis 6 was supported by the data. Greater maternal depression was related to less belief in parenting self-efficacy. The prediction of a direct relationship between parental stress and parenting self-efficacy was reduced once depression was entered as a predictor. Thus, maternal depression appears to be a significant mediator of the relationship between parental stress and parenting self-efficacy.

The Sobel tests examining whether the effect of chronic stress and parental stress on parenting self-efficacy diminished significantly after depression was entered were each significant at  $p<.001$ .

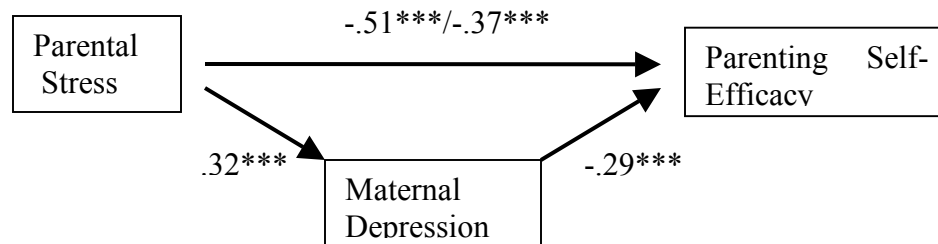




**Figure 2. Path Diagram Testing the Model that Maternal Depression Mediates the Relationship between Acute Stress and Parenting Self-efficacy: Whole Sample, N=388**



**Figure 3. Path Diagram Testing the Model that Maternal Depression Mediates the Relationship between Chronic Stress and Parenting Self-efficacy: Whole Sample, N=388**



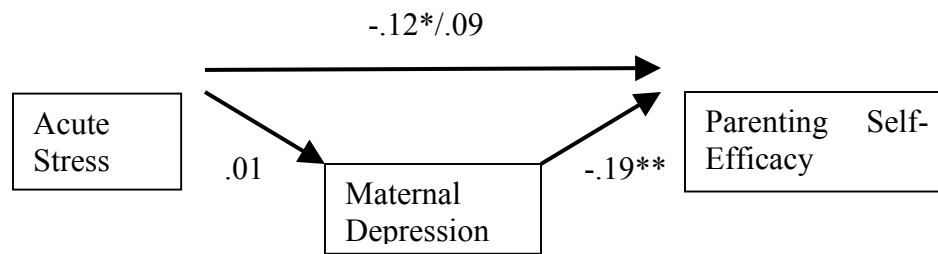
**Figure 4. Path Diagram Testing the Model that Maternal Depression Mediates the Relationship between Parental Stress and Parenting Self-efficacy: Whole Sample, N=388**

*Low-income Group.* The path analysis testing the model that maternal depression mediates the parenting self-efficacy, as measured by acute stress, was not supported for the low-income group.

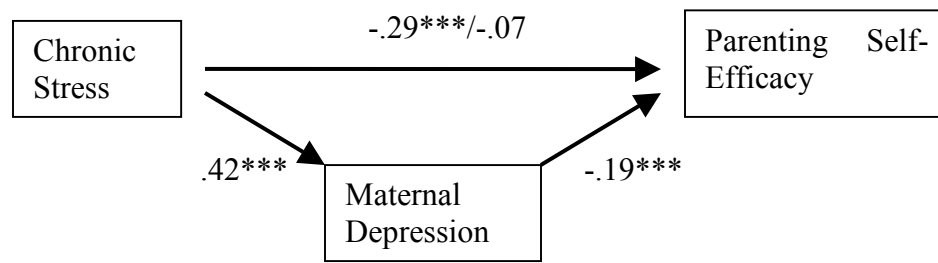
For the low-income group, chronic stress was significantly related to maternal depression ( $\beta=.42$ ,  $p<.001$ ), and maternal depression was significantly related to the dependent variable ( $\beta=-.19$ ,  $p<.01$ ). The beta coefficients between chronic stress and parenting self-efficacy were not significant after the variable of maternal depression was entered (from  $-.29^{***}$  to  $-.07$ ). This is consistent with full mediation assumptions.

For the low-income group, parental stress was significantly related to maternal depression ( $\beta=.31$ ,  $p<.001$ ), and maternal depression was significantly related to the dependent variable ( $\beta=-.19$ ,  $p<.001$ ). The beta coefficients between parental stress and parenting self-efficacy were reduced (from  $-.51$  to  $-.41$ ). This is consistent with partial mediation assumptions.

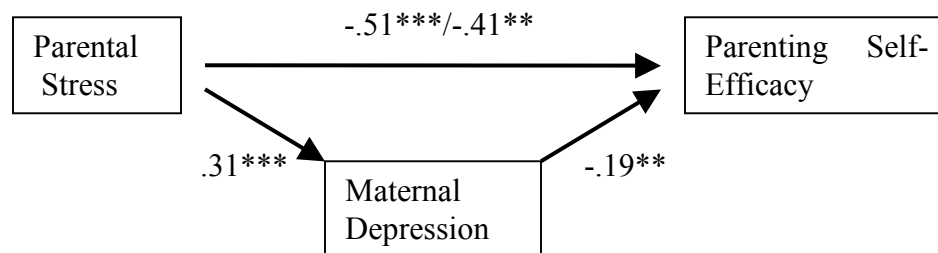
The Sobel tests examining whether the effect of chronic stress and parental stress on parenting self-efficacy diminished significantly after depression was entered were each significant at  $p<.01$ .



**Figure 5. Path Diagram Testing the Model that Maternal Depression Mediates the Relationship between Acute Stress and Parenting Self-efficacy: Low-income Group, N=240**



**Figure 6. Path Diagram Testing the Model that Maternal Depression Mediates the Relationship between Chronic Stress and the Parenting Self-efficacy: Low-income Group, N=240**



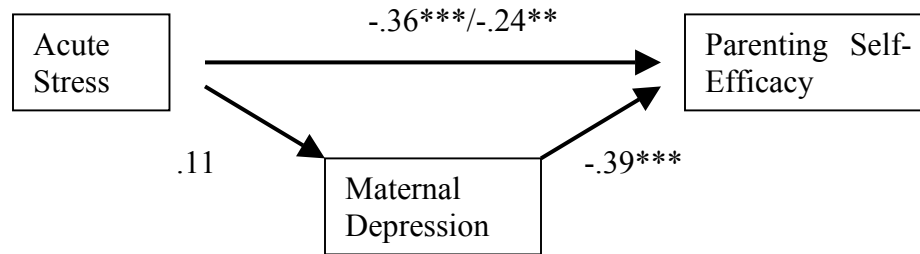
**Figure 7. Path Diagram Testing the Model that Maternal Depression Mediates the Relationship between Parental Stress and the Parenting Self-efficacy: Low-income Group, N=240**

*Middle-income Group.* The path analysis testing the model that maternal depression mediates the parenting self-efficacy, as measured by acute stress, was not supported for the middle-income group.

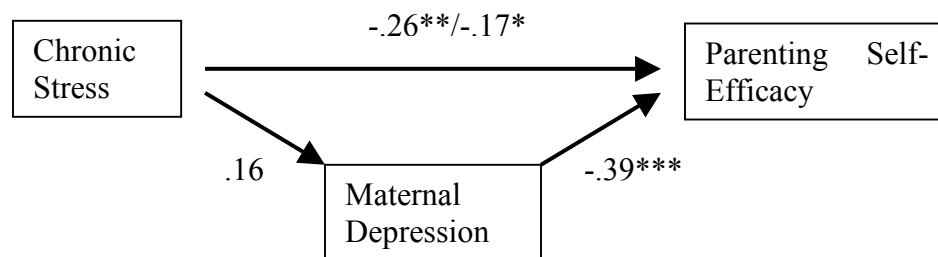
Figure 9 shows that the path analysis for hypothesis 5 was not supported for the middle-income group because chronic stress did not relate to maternal depression.

For the middle-income group, parental stress was significantly related to maternal depression ( $\beta=.35$ ,  $p<.001$ ), and maternal depression was significantly related to the dependent variable ( $\beta=-.39$ ,  $p<.001$ ). The beta coefficients between parental stress and parenting self-efficacy were reduced (from  $-.50$  to  $-.31$ ). This is consistent with partial mediation assumptions.

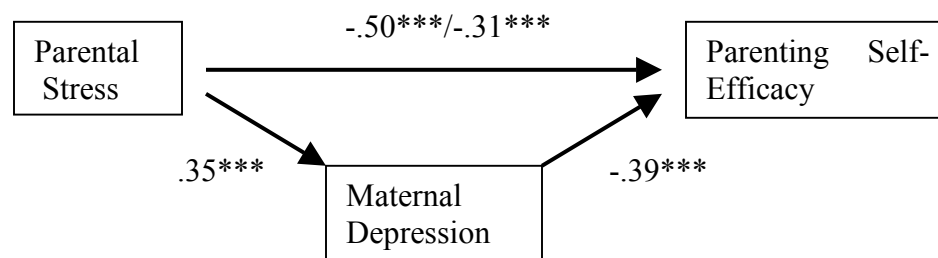
The Sobel tests examining whether the effect of chronic stress and parental stress on parenting self-efficacy diminished significantly after depression was entered were each significant at  $p<.01$ .



**Figure 8. Path Diagram Testing the Model that Maternal Depression Mediates the Relationship between Acute Stress and the Parenting Self-efficacy: Middle-income Group, N=148**



**Figure 9. Path Diagram Testing the Model that Maternal Depression Mediates the Relationship between Chronic Stress and the Parenting Self-efficacy: Middle-income Group, N=148**



**Figure 10. Path Diagram Testing the Model that Maternal Depression Mediates the Relationship between Parental Stress and the Parenting Self-efficacy: Middle-income Group, N=148**

In summary, the simplified model was generally supported: maternal depression mediated the effects of chronic stress on parenting self-efficacy, especially for the low-income group. It was observed that maternal depression also mediated the effects of parental stress on parenting self-efficacy. There was no significant direct relationship between income and parenting self-efficacy and between mother's job status and parenting self-efficacy. However, income was related significantly to acute stress, chronic stress and maternal depression.

## **5.0 DISCUSSION**

The main purpose of this research study was to examine how mothers' stressors (acute, chronic, and parental stress) relate to maternal depression and parenting self-efficacy. First, the study attempted to investigate a relationship between mothers' stressors (acute, chronic, and parental stress) and parenting self-efficacy. Second, the study attempted to explore the relationships between mothers' stressors and maternal depression while controlling for income, mother's education, mother's job status and total support. The study also attempted to find the independent and unique contributions of acute stress, chronic stress, and parental stress in explaining maternal depression. Third, the study attempted to explore a relationship between maternal depression and parenting self-efficacy. Finally, the study aimed to investigate a mediating effect of maternal depression on the relationship between mothers' stressors and parenting self-efficacy. Some of the hypotheses were strongly supported while others led to unexpected yet interesting findings. In addition, limitations of the study and implications are discussed later in this chapter.

### **1. Acute stress, chronic stress, parental stress, and parenting self-efficacy**

Korean women in the sample were somewhat positive in parenting self-efficacy. However, women in the low-income group reported lower levels of parenting self-efficacy than did those in the middle-income group. These results are consistent with the evidence that

poverty and disadvantage at the family level has a negative impact on parenting behaviors. Economic strain has been linked to lower levels of parental nurturance and warmth (Conger, Conger, et al., 1993; McLoyd, Jayaratne, Ceballo, & Borquez, 1994; McLoyd & Wilson, 1992), decreased parental involvement (Bolger, Patterson, Thompson, & Kupersmidt, 1995; Harris & Marmer, 1996), increased parent hostility and irritability (Conger, Ge, Elder, Lorenz, & Simons, 1994; Elder et al., 1984), and a generally more negative parent-child relationship (Conger, McCarty, Yang, Lahey, & Kropp, 1984; Elder, Nguyen, & Caspi, 1985; Felner, Brand, DuBois, Adan, Mulhall, & Evans, 1995; Ge, Conger, Lorenz, Elder, Montague, & Simons, 1992).

The current study revealed that, when controlling for household income, all aspects of acute, chronic, and parental stress were significantly correlated with parenting self-efficacy. Yet, when acute/chronic stress and parental stress were entered into the analysis at the same step, only parental stress remained a strong predictor of parenting self-efficacy. These results showed that parental stress had a more direct influence on parenting than any other factor measured in this study. The influence of parental stress on parenting was followed closely by that of chronic stress. Chronic stress seemed to be more closely related to parenting self-efficacy than was acute stress. Chronic stress seemed to have a higher relationship to parenting self-efficacy because it is a subjective stressor compared to acute stress, which is an objective stressor.

In addition, a high level of maternal depression was also associated with lower parenting self-efficacy. This result is consistent with previous evidence that distressed parents not only reported feeling less effective and less capable in disciplinary interactions with their child but they were also observed to be less affectionate in parent-child interactions (Goodman and Brumley, 1990; Misty et al., 2002; Webster-Stratton and Hammond, 1988).



## 2. Acute stress, chronic stress, parental stress, and maternal depression

The current study found that low-income women reported a greater number of acute and chronic stressors than middle-income women. The low-income women also rated their acute and chronic stressors as more severe than did the middle-income women. These findings are consistent with those of previous studies (Bassuk et al., 1998; Belle & Doucet, 2003; Brown et al., 1975). In addition, the low-income women tended to perceive more parental stress than did the middle-income women. Korean women tend to perceive housework and child rearing most stressfully among chronic stressors.

The severity of total, acute and chronic stress, as measured on the WSS, related more with parenting self-efficacy than did the frequency of total, acute and chronic stress. The severity of total, acute and chronic stress on the WSS related more with the severity of depressive symptoms than did the frequency of total, acute and chronic stress. These correlations appear to support Lazarus' model (Lazarus & Folkman, 1984) and a need to examine perceived life events and chronic stress as was done in this study.

I found that the frequency and severity of acute, chronic and parental stress was positively associated with the severity of depressive symptoms. Chronic stress and parental stress were significant predictors of depression. Thus, in general, chronic stressors relate more consistently to symptoms of depression than do discrete events. Especially for the low-income group, chronic stress affected maternal depression more than it did for the middle-income group. However, acute stress was not a significant predictor of depression. The findings of this study are consistent with those of previous studies. Brown & Harris (1978) suggested that chronic stressors may exacerbate the negative effects of acute stressors on depression. Previous studies examining that the stressful life experiences of poor populations show that chronic stresses

provide a more powerful prediction of psychological and physical symptoms than other measures of life circumstances (Avison & Turner, 1988; Mattlin et al., 1990; McGonagle & Kessler, 1990; Thoits, 1995).

### 3. Maternal depression and parenting self-efficacy

The current study found that 33.6% of the women in the sample scored 16 or above on the CES-D, indicating probable major depression. In fact, according to US statistics, at any point in time, 8% to 18% of the population is suffering from depression (Myers & Weissman, 1980), and it is estimated that up to 25% of the total population experience a depressive episode at least once during their life (Weissman & Myers, 1978). Currently, there are no systematic large-scale epidemiological studies that have been conducted in Korea on depression. However, among the representative studies that have been carried out so far, Lee Jeong-Gyun et al. (1986) mentioned that the rate of occurrence for depression during one's life in Korea is around 6%. Cho et al. (1998) carried out a study using as subjects 4,563 adults between the age of 20 and 59, and reported a prevalence rate of 23.1% of men, 27.4% of women, and 25.3% of all subjects that have shown depressive symptoms, and a prevalence rate of 6.8% of men and 10.4% of women that have shown depression. The results of the current survey showed that the rate of mothers suffering from depression was considerably higher than in other countries.

The current study found that low-income women reported higher levels of depressive symptoms than did middle-income women. These results are consistent with earlier research coming from the United States (Belle, 1982; Wolf, 1987). It has long been appreciated that poverty is a major risk factor for depression among women. Adults in poverty are twice as likely as nonpoor adults to experience a new episode of major depression (Bruce, Takeuchi, & Leaf,

1991), and financial hardship almost doubles women's risk for the onset of depression (Brown & Moran, 1997). Empirical investigations have shown that high levels of depressive symptoms are common among those with low incomes, especially mothers with young children (Bogard, Trillo, Schwartz, & Gerstel, 2001; Brown, Bhrolchain, & Harris, 1975; Dressler, 1985; Gyamfi, Brooks-Gunn, & Jackson, 2001; Pearlin & Johnson, 1997)

Current study data revealed that deeper maternal depression was associated with lower parenting self-efficacy. It showed that the mental health of mothers greatly influenced their parenting. Maternal depression and emotional distress have been found to be associated with physical abuse, use of aversive, coercive discipline, and diminished maternal sensitivity and satisfaction with parenting (Patterson, 1983).

#### 4. The role of maternal depression as a mediator

For the sample as a whole, maternal depression mediated the effects of both chronic stress and parental stress on parenting self-efficacy. With both stress measures (chronic stress, and parental stress), higher stress levels were related to greater maternal depression, which was related to less parenting efficacy. Chronic stress impaired maternal psychological distress and maternal mental health affected parenting efficacy, especially for low-income group.

For the middle-income group, the path analysis testing the model that maternal depression mediates the parenting self-efficacy, as measured by chronic stress, was not supported. However, also for the middle-income group, the model with maternal depression as a mediator in parenting self-efficacy, as measured by parental stress, was supported by the data and paralleled the patterns for the low-income group. Middle-income women felt much parental stress, and, in this case, maternal depression mediated the effects of parental stress in parenting self-efficacy.

## **5.1 LIMITATIONS OF STUDY**

The hypothesis that was proposed in this paper is that the mental health problems of poor parents may have resulted from socio-environmental stressors and that those mental health problems impact negatively on the children through disruptions in parenting. The study results confirmed a significant inverse relationship between life stressors and parenting self-efficacy. Maternal distress became a significant mediator between overall stress and the parenting self-efficacy.

Further observation should be given to several significant limitations that complicate a conclusion of the direction of causality in this study. Namely, health status (Antonovsky, 1985), a specific piece of demographic datum has also been found to correlate with stress. Other conditions that might also have undermined or impacted on poor women's psychological distress in this study include personality/character, physical and mental health problems, and personal coping ability. Therefore, for preexisting problems to be monitored in future research, controls would need to be implemented for personal and environmental factors that impact maternal distress and parenting.

A future study might find that better family functioning precedes the parents' state of psychological well-being. It has been established that difficult children can influence parenting practices (McLoyd, 1990). Thus, mothers who experience their children's behavior as "troubling" might be under greater stress and at greater risk for such negative outcomes such as lowered self-esteem and less satisfaction with parenting (Koeske & Koeske, 1990). In such an analysis between a mediator variable and a dependent variable, the time-ordering of events might be another potential issue in the exploration of association between stress, maternal psychological well-being, and parenting. It should be emphasized that this study does not

consider parents' psychological well-being to be a response to quality of child-parent relationships, but as a possible element of a person's life.

There are real limits to the generalizability of this study, even to the Korean population as a whole. The method for conducting this study was a convenience sample. The majority of participants were recruited through daycare centers in Seoul, Korea. Therefore, those poor Korean families with lower incomes who reside in other areas and are not affiliated with these institutions may not be represented. Additionally, this study reflects a regional sample of mostly volunteer participants who have greater resources than other low-income mothers. A subject for future research might be the question of how widely applicable the findings of this study are to other Korean or ethnic populations. To increase the generalizability of this study, economically-disadvantaged mothers would have to be recruited from broad geographic areas using random selection.

Another limitation of the study is related to the measurement scales used, especially the income level, stress, mental health, and parenting self-efficacy scales. These scales were all self-report measures. Some studies use administrative records to obtain objective indicators such as income levels. And, in other studies, the researcher takes an observer stance, exploring some parenting measures that rely on interviews and/ or videotapes of the parent-child interaction. Objective evaluation by the researcher may make up for weaknesses in the data resulting from participants' self-reporting.

## 5.2 IMPLICATIONS

This study recognizes that the lower the income was, the more vulnerable the mother was to stress, and it also showed that chronic stressors had more influence on maternal depression for low-income mothers than for middle-class mothers. This study provides the insight that there may be other stressful experiences that influence the relationship between economic situations, maternal mental health status, and parenting. That is, other stressors (such as life events, chronic stress and parental stress) might play a dynamic role in the stress process.

Results from this study indicate that socio-environmental stress and parental stress could result in depression and a low level of parenting self-efficacy among Korean mothers. Although income was an important variable, even when it was controlled, chronic stress and parental stress were found to be even more influential variables on maternal depression and parenting self-efficacy. This study showed specifically that the mental health of low-income mothers mediated the relationship between chronic stress and parenting. It is important to help Korean families develop positive parent-child relationships through programs and interventions, and also to encourage mothers to develop stress management skills.

### 1. Implications for Social Work Practice

Support for a mediated pathway between exposure to socio-environmental stress and parenting, and the mediating effect of maternal psychological well-being, offers two important targets for prevention and intervention efforts. One salient finding from the current study was that Korean mothers experience high level of depression and parenting stress. Chronic stressors had more influence on maternal depression for low-income mothers than for middle-income mothers. These results show that, for the low-income group, chronic stress had a greater

influence than did acute stress. The current study showed that maternal depression had a great influence on parenting self-efficacy. This finding suggests that the mental health status of mothers is important to their role as a parent. Specifically, it showed the importance of mental health in mediating stressors. To maximize effective parenting under high-stress conditions, mothers need to first protect their own psychological well-being against environmental context. The development of good mental health practices might also be used as a preventive strategy. If women have mental health problems, supporting them to parent effectively will be of crucial importance. In direct practice, it could help to review all the chronic stressors in a poor woman's life before moving to a discussion of the underlying causes of her behavior. The behavior of the mother may be the result of overwhelming stress resulting from poverty and her new responsibilities as a mother. A therapist may help lessen the impact of the mother's feelings and reduce the chance that she will harm her child. If mother and the therapist decide that some chronic conditions are pivotal, then there may be a need to correct distortions, enhance supportive structures, mobilize existing resources, refer information supports, provide instrumental assistance, or advocate for missing resources.

Social workers must understand the significance and unique contributions of acute stress, chronic stress and parenting stress in the lives of Korean low-income mothers. Social workers must also understand that there are relationships between and among such factors as socio-environmental stress, parenting stress, depression and parenting self-efficacy. Once understood and incorporated into practice, these findings regarding the impact of these stressors on the mental health and parenting abilities of Korean low-income women can help social workers and clinicians work more effectively with this population.

Social support was significantly related to parenting self-efficacy, the severity of depression, the severity of acute stress, the severity of chronic stress, and the severity of parental stress. Emotional support, especially, was significantly related to parenting self-efficacy, the severity of depression, and the severity of parental stress. Previous studies have found that perceived emotional support is directly associated with better mental health and usually buffers the damaging mental health impacts of major life events and chronic strains (Thoits,1995). Economically disadvantaged women may possess fewer resources to deal with them (McLeod & Kessler, 1990). Thus, professionals working with poor mothers may need to assess and facilitate the development and use of available support networks, in order to protect the mental health and parenting self-efficacy of the mothers thereby also serving the children. Increasing the role of father as a caregiver should be considered. In addition, developing community support groups for mothers may provide them an additional valuable resource.

Future research could be carried out on how social support could be linked to health outcomes and parenting on a main effect basis and the mechanism through which stress-buffering effects could occur.

Building a sense of perceived control over parenting offers one potential means to provide empowerment that could also serve to increase resiliency among mothers facing conditions of socio-environmental stress. This means that practitioners must select empowerment-based practice orientations. By recognizing the dynamics that exist in resilient families in poverty, social workers can utilize that information to encourage them to take preventative programs of treatment. It is well known that family support policy in the US holds the promise of strengthening the functionality of the family unit. This preventative program for socioeconomic disadvantaged families is needed in Korea. In Korea, Health and Family Support



Centers have been established that focus on parent education and family support programs for immigrant families, single parents, and their children. However, there are still no support programs for mothers who may be in need of services to help them manage their mental health or stress issues. Adequate services that provide help for families to function more productively can reduce the amount of government expenditures by preventing the costs associated with restoring families with dysfunctional behaviors back to health.

## 2. Implications for Social Policy

Existing studies all mention the influence that the quality of parenting has on child development. These studies show that there is a high correlation between the mother's mental health and parent-child relations. For the welfare of the child, attention must be shown to the mental health of mothers and their welfare, and policy development and management for these issues are desperately needed.

Although there is a Mental Health Act in Korea, it mainly deals with institutional care that is limited to the treatment and rehabilitation of psychosis, and there is no concrete evidence of preventive measures for depression. There is a need for government interest in this area and for the development of public policies and programs regarding the mental health of people, as without such measures, a serious disease of the modern society could result. According to the studies of organizations such as the Korean Neuro-Psychiatric Association, only 10%~25% of the patients who suffer from depression in Korea receive treatment. Accordingly, comprehensive and systematic efforts are urgently needed for depression prevention, which can be regarded as a barometer of mental health. Recent studies point out that a large proportion of depression diagnoses have circumstantial causes, that the occurrence of depression is low, and

also that the recovery rate for patients with a good support network is high, thus supporting the need for preventive approaches to depression (Pearlin, 1989; Thoits, 1995; Turner et al., 1995).

To give an example of a plan for improving the mental health of the whole nation using a universal approach, disseminating basic knowledge and education about mental health can be undertaken as part of community activities. With a selective approach, various support programs can be operated such as a supporting network for groups with a higher likelihood of suffering from depression (such as low-income families, the unemployed, and people who are bankrupt), and provide systematic information on case management, cognitive behavior approaches, and solutions to problems. Depression is the result of one's approach to life, the way one processes life, or the outcome of various stimuli that occur in life. Accordingly, it can be said that a preventive approach to depression penetrates practically all areas of life. In this regard, prevention of depression has to be accomplished from a multi-faceted and comprehensive perspective, and it also means that there is a need for social welfare organizations that take an integrative approach in their projects to become more actively involved in this area.

The culture and value of the Korean society, which places the responsibility of bringing up children mainly on the mother, needs to be changed. The study showed that mothers had high parenting stress, and they expressed their grievances that they did not have enough time for themselves. Penfold & Walker (1983) indicated the changing shape of the family in Western society since feudalism. Limitations on women's spheres and their subordination to public spheres increased their economic dependence on men and served to devalue their primary activities of childrearing and homemaking as compared to "productive" activities like wage earning. Mother's inadequacies were blamed for delinquency, crime, mental illness, and the behavioral and emotional problems of their children, but fathers were virtually absent in these

theories of pathogenesis. Penfold & Walker conclude that we must confront the dilemmas faced by women in society, make visible the full meaning of women's experience, and reinterpret knowledge in terms of that experience. The alternative to traditional treatment may be social and community mental health with a feminist focus, which will tend to downplay the expert role of the therapist, promote the use of lay therapy and self-help, and not blame the victim. Society could begin to emphasize cooperation between parents in terms of raising and protecting their children. One example is material that recently started appearing in middle and high school textbooks dealing with equality in doing housework and raising children. A policy is needed that divides the responsibility of raising children among family members, the region, society, and the government, rather than depending only on the mother.

Moreover, social supports and systems are needed to reduce social-environmental stressors. The results of this study showed that many low-income families suffered from chronic stress due to the unemployment of the husband, economic stress, and debt. Korea has achieved remarkable economic growth and has undergone various and rapid socio-economic changes for the past three decades. While Koreans now enjoy an overall improvement in living standards, industrialization and urbanization have brought about such side-effects such as disparities in income levels. Therefore, there is a great demand for government activities that will eliminate this disparity. The Ministry of Health and Welfare is primarily responsible for the social security schemes that support the low-income class with such efforts as the National Basic Livelihood Security, medical aid, Employment Insurance, and social welfare services. Although the basic framework of the social security system has been established, its quality and content are not yet sufficient to meet the various demands for welfare services. Moreover, the supplier-oriented

system of social security needs to be reformed to make it more effective. It is hoped that the current study contributes to this objective.

## **APPENDIX A**

### **INTRODUCTION LETTER**

Dear Parents,

I am writing to ask for your help in a research study I am conducting as part of my dissertation work in the Social Work Ph. D. program at the University of Pittsburgh. Relatively little systematic research has been done to advance our understanding of the relationships between parents' stress and their feelings about toward the numerous aspects of their parenting role. I would like you to assist me in developing a better understanding of this important issue by responding to a questionnaire.

My project involves asking mothers of children ages 3-5 in 12 daycare centers to complete a brief questionnaire. The questionnaire asks about family life, especially the role of socio-environmental stressors on the lives of Korean families and children. The questionnaire also asks some questions related to your beliefs in parenting, parental stress and your level of health status.

The purpose of this research study is to better understand the issues facing Korean mothers and children. There are no foreseeable risks associated with this project, nor are there any direct benefits to you. Your response to this survey, however, will benefit others as the results of this project may contribute to our knowledge of what is important to Korean mothers and their children and to the development of social policy. The results will also help me personally in learning about what may be important to study in my future career.

This is a completely anonymous questionnaire, and confidential. The results of this study will look only at summaries of everyone who responds to the questionnaire, not at individual responses. This study has been approved by the Internal Review Board at the University of Pittsburgh and adheres to the board's ethical guidelines. This survey is voluntary. You can help me very much by taking a few minutes to respond. The survey should take about 30 minutes to complete. Each participant will receive \$ 10 gift certificate as a token of our appreciation. I greatly appreciate your time and effort in helping me with this project.

If you have any questions or comments about this study, I would be happy to talk with you. I can be reached at 041-550-0533 or e-mailed at [jek27@pitt.edu](mailto:jek27@pitt.edu). If you are interested in seeing the results of this study, please send me an e-mail message asking me to send you a summary of the results at the completion of the study. If you would like me to send the results to your home address, please include your address in the e-mail message. If not, I will send the results to your e-mail address.

Thank you very much for your help with this important study.

Sincerely,

Jean-Ie Kim, Ph. D.

Ph. D. student, University of Pittsburgh, School of Social Work

## **APPENDIX B**

### **MEASUREMENT OF SOCIO-ENVIRONMENTAL STRESS**

## WHAT IS STRESSFUL IN YOUR LIFE?

Instructions. For each event listed below please indicate if it has occurred in your life in the last 12 months. If it has *not* occurred, circle "0" (Did not happen to me); if it *did happen* to you, indicate *how stressful* the event was for you by circling a number from 1 (not at all or slightly stressful) to 5 (extremely stressful).

Did Not Happen to Me	Did Happen and Was:				
	Not At All or Only Slightly Stressful	Somewhat Stressful	Quite Stressful	Very Stressful	Extremely Stressful
0	1	2	3	4	5

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<i>Acute stressors</i>	0	1	2	3	4	5
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### Family Member

- |  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
| 1. Family member is ill/injured .....                                | 0 | 1 | 2 | 3 | 4 | 5 |
| 2. Family member is arrested, in jail, in trouble with the law ..... | 0 | 1 | 2 | 3 | 4 | 5 |

### Friend

- |  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
| 3. Friends is ill/injured .....  | 0 | 1 | 2 | 3 | 4 | 5 |
| 4. A friend betrays you .....  | 0 | 1 | 2 | 3 | 4 | 5 |
| 5. Friendship breaks up .....  | 0 | 1 | 2 | 3 | 4 | 5 |
| 6. <b>Turned down for help from someone you've helped before</b> ..... | 0 | 1 | 2 | 3 | 4 | 5 |
| 7. Depended on someone who didn't come through .....                   | 0 | 1 | 2 | 3 | 4 | 5 |

### Partner/Spouse

- |  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
| 8. Getting married/newly married.....                          | 0 | 1 | 2 | 3 | 4 | 5 |
| 9. Marital discord.....  | 0 | 1 | 2 | 3 | 4 | 5 |
| 10. <b>Breaking up with spouse</b> .....                       | 0 | 1 | 2 | 3 | 4 | 5 |
| 11. <b>Getting a Divorce</b> .....                             | 0 | 1 | 2 | 3 | 4 | 5 |
| 12. Spouse is arrested, in jail, in trouble with the law ..... | 0 | 1 | 2 | 3 | 4 | 5 |
| 13. <b>Spouse loses his job</b> .....                          | 0 | 1 | 2 | 3 | 4 | 5 |

### Health and Well-Being-Self

- |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| 14. Pregnant.....   | 0 | 1 | 2 | 3 | 4 | 5 |
| 15. Had a child.....  | 0 | 1 | 2 | 3 | 4 | 5 |
| 16. <b>Had an abortion</b> .....                                      | 0 | 1 | 2 | 3 | 4 | 5 |
| 17. Had a miscarriage, stillbirth, or were unable to conceive .....   | 0 | 1 | 2 | 3 | 4 | 5 |
| 18. Needing to go to the hospital for surgery or other treatment..... | 0 | 1 | 2 | 3 | 4 | 5 |



## WHAT IS STRESSFUL IN YOUR LIFE?

Instructions. For each event listed below please indicate if it has occurred in your life in the last 12 months. If it has *not* occurred, circle "0" (Did not happen to me); if it *did* happen to you, indicate *how stressful* the event was for you by circling a number from 1 (not at all or slightly stressful) to 5 (extremely stressful).

	Did Not Happen to Me	Did Happen and Was:				
		Not At All or Only Slightly Stressful	Somewhat Stressful	Quite Stressful	Very Stressful	Extremely Stressful
	0	1	2	3	4	5
<i>Acute stressors</i>	0	1	2	3	4	5
19. Had a medical test or Need to go for a medical test.....	0	1	2	3	4	5
20. You were the victim of a crime against your person (e.g., someone hurt me, threatened me, or forcibly stole from me something that was mine).....	0	1	2	3	4	5
<u>Death</u>						
21. Death of a parent .....	0	1	2	3	4	5
22. Death of a family member (not parents) .....	0	1	2	3	4	5
23. Death of your child .....	0	1	2	3	4	5
24. Spouse's death .....	0	1	2	3	4	5
25. Death of a friend or someone in your community/people you know.....	0	1	2	3	4	5
<u>Job/School/Financial</u>						
26. <b>Lost your job</b> .....	0	1	2	3	4	5
27. <b>Got into debt beyond means of repayment</b> .....	0	1	2	3	4	5
28. <b>Income decreased/loss of benefits/sanctioned by welfare</b> .....	0	1	2	3	4	5
29. Failed school or training program .....	0	1	2	3	4	5
<u>Housing</u>						
30. <b>Changes in residence/moved or moving to different housing</b> .....	0	1	2	3	4	5

## WHAT IS STRESSFUL IN YOUR LIFE?

Instructions. For each *life condition or situation* listed below please indicate if it has occurred in your life in the last 12 months. If it has *not* occurred, circle “0” (Did not happen to me); if it *did happen* to you, indicate *how stressful* the event was for you by circling a number from 1 (not at all or slightly stressful) to 5 (extremely stressful).

Did Not Happen to Me	Did Happen and Was:				
	Not At All or Only Slightly Stressful	Somewhat Stressful	Quite Stressful	Very Stressful	Extremely Stressful
0	1	2	3	4	5

### Chronic Stressors

#### Housing/Neighborhood

1. Living in overcrowded housing .....	0	1	2	3	4	5
2. Trying to get landlord to make repairs .....	0	1	2	3	4	5
3. Living in housing in need of repairs .....	0	1	2	3	4	5
4. Living in a neighborhood that is not safe or good for raising children.....	0	1	2	3	4	5
5. Living in an excessively noisy neighborhood .....	0	1	2	3	4	5

#### Financial/Transportation

6. Trying to make ends meet/running out of money .....	0	1	2	3	4	5
7. Bill collectors harassing you .....	0	1	2	3	4	5
8. Being unable to afford your own place .....	0	1	2	3	4	5
9. Can't afford things your kid(s) want .....	0	1	2	3	4	5
10. Being behind in bills .....	0	1	2	3	4	5
11. Can't afford to replace worn out furniture .....	0	1	2	3	4	5
12. Can't afford health care costs .....	0	1	2	3	4	5
13. Unable to afford dinner out, see a movie, or spend money on recreation.....	0	1	2	3	4	5
14. Unsure you can pay monthly payments for living in an apartment and payments for water, electricity, gas or telephone services .....	0	1	2	3	4	5
15. Unable to buy a home .....	0	1	2	3	4	5
16. Being on welfare.....	0	1	2	3	4	5
17. Applying for social service aid or welfare .....	0	1	2	3	4	5
18. Unable to afford a car or car trouble .....	0	1	2	3	4	5
19. Problems with buses/public transportation or can't afford bus fare/pass .....	0	1	2	3	4	5

#### Job/School

## WHAT IS STRESSFUL IN YOUR LIFE?

Instructions. For each *life condition or situation* listed below please indicate if it has occurred in your life in the last 12 months. If it has *not* occurred, circle “0” (Did not happen to me); if it *did happen* to you, indicate *how stressful* the event was for you by circling a number from 1 (not at all or slightly stressful) to 5 (extremely stressful).

Did Not Happen to Me	Did Happen and Was:				
	Not At All or Only Slightly Stressful	Somewhat Stressful	Quite Stressful	Very Stressful	Extremely Stressful
0	1	2	3	4	5

<i>Chronic stressors</i>	0	1	2	3	4	5
20. Being in school (but not working) .....	0	1	2	3	4	5
21. Co-workers don't do their share of the work .....	0	1	2	3	4	5
22. Your job leaves you feeling both mentally and physically tired.....	0	1	2	3	4	5
23. <b>Trying to find a job</b> .....	0	1	2	3	4	5

### Family member

24. Family member is being abused .....	0	1	2	3	4	5
25. Argument(s) with family member(s) .....	0	1	2	3	4	5
26. <b>Family member with personal/emotional/financial problems</b> .....	0	1	2	3	4	5
27. Family member drinks too much .....	0	1	2	3	4	5
28. Conflict with family member/in-law .....	0	1	2	3	4	5

### Friend

29. Friend with emotional/financial problems .....	0	1	2	3	4	5
30. Argument(s) with friend(s)/acquaintance(s) .....	0	1	2	3	4	5
31. Friend drinks too much or is involved with drugs .....	0	1	2	3	4	5

### Partner

32. <b>Being torn between two romantic partners</b> .....	0	1	2	3	4	5
33. Your spouse lied to you .....	0	1	2	3	4	5
34. Spouse doesn't get along with your friend .....	0	1	2	3	4	5
35. Not having a satisfying sexual relationship .....	0	1	2	3	4	5
36. Argument(s) with your spouse .....	0	1	2	3	4	5
37. <b>Involved with a partner who doesn't contribute financially</b> .....	0	1	2	3	4	5
38. Spouse spent money in ways you thought unwise .....	0	1	2	3	4	5
39. Trying to find romantic/sexual companionship .....	0	1	2	3	4	5
40. Spouse demands or asks to borrow money from you .....	0	1	2	3	4	5
41. Your spouse is jealous/possessive .....	0	1	2	3	4	5

## WHAT IS STRESSFUL IN YOUR LIFE?

Instructions. For each *life condition or situation* listed below please indicate if it has occurred in your life in the last 12 months. If it has *not* occurred, circle “0” (Did not happen to me); if it *did happen* to you, indicate *how stressful* the event was for you by circling a number from 1 (not at all or slightly stressful) to 5 (extremely stressful).

	Did Not Happen to Me	Did Happen and Was:				
	Not At All or Only Slightly Stressful	Somewhat Stressful	Quite Stressful	Very Stressful	Extremely Stressful	
	0	1	2	3	4	5
<i>Chronic stressors</i>						
42. Spouse is romantically or sexually engaged with another person.....	0	1	2	3	4	5
 <u>Parenting</u>						
43. Being a mother and working (and/or going to school).....	0	1	2	3	4	5
44. Trying to find a dependable babysitter .....	0	1	2	3	4	5
45. <b>Being the only parent</b> .....	0	1	2	3	4	5
46. <b>Having to tell your child something over and over</b> .....	0	1	2	3	4	5
47. Not enough time to spend with your child or children .....	0	1	2	3	4	5
48. Getting children ready for school in the morning .....	0	1	2	3	4	5
49. Unsure if the way you are raising your child is best for the child.....	0	1	2	3	4	5
50. Your child does not do well enough at school .....	0	1	2	3	4	5
 <u>Health and Well-Being-Self</u>						
51. Being overweight .....	0	1	2	3	4	5
52. Chronic pain and/or disability .....	0	1	2	3	4	5
53. Being ill and having a health problem.....	0	1	2	3	4	5
54. <b>Being approached/spoken to disrespectfully by someone discriminating against you</b> .....	0	1	2	3	4	5
55. Housework .....	0	1	2	3	4	5
56. Not enough time for yourself .....	0	1	2	3	4	5
57. Too much is expected of you by others .....	0	1	2	3	4	5

*Note.* Note. Stressors in bold were more frequently experienced by low-income women than middle-income women.

## **APPENDIX C**

### **MEASUREMENT OF PARENTAL STRESS**

## FEELINGS ABOUT MY ROLE AS A PARENT

For each statement, please rate your amount of agreement from 1 (strongly disagree) to 5 (strongly agree). Circle the number that best reflects your feeling. When answering questions about your child, answer with respect to the child attending the day care center. If there may be more than one child in the center, please answer with respect to the oldest child

Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1	2	3	4	5

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| 1. I often have the feeling that I cannot handle things very well. ....  | 1 | 2 | 3 | 4 | 5 |
| 2. I find myself giving up more of my life to meet my children's needs than I ever expected. ....                      | 1 | 2 | 3 | 4 | 5 |
| 3. I feel trapped by my responsibilities as a parent. ....   | 1 | 2 | 3 | 4 | 5 |
| 4. Since having this child I have been unable to do new and different things. ....                                     | 1 | 2 | 3 | 4 | 5 |
| 5. Since having a child I feel that I am almost never able to do things that I like to do. ....                        | 1 | 2 | 3 | 4 | 5 |
| 6. Having a child has caused more problems than I expected in my relationship with my spouse (male/female friend)..... | 1 | 2 | 3 | 4 | 5 |
| 7. When I go to a party I usually expect not to enjoy myself. ....   | 1 | 2 | 3 | 4 | 5 |
| 8. I am not as interested in people as I used to be. ....  | 1 | 2 | 3 | 4 | 5 |
| 9. My child rarely does things for me that make me feel good. ....   | 1 | 2 | 3 | 4 | 5 |
| 10. Most times I feel that my child does not like me and does not want to be close to me. ....                         | 1 | 2 | 3 | 4 | 5 |
| 11. My child smiles at me much less than I expected. ....  | 1 | 2 | 3 | 4 | 5 |
| 12. When I do things for my child I get the feeling that my efforts are not appreciated very much. ....                | 1 | 2 | 3 | 4 | 5 |
| 13. When playing, my child doesn't often giggle or laugh. ....   | 1 | 2 | 3 | 4 | 5 |
| 14. My child doesn't seem to learn as quickly as most children. ....   | 1 | 2 | 3 | 4 | 5 |
| 15. My child doesn't seem to smile as much as most children. ....  | 1 | 2 | 3 | 4 | 5 |
| 16. My child is not able to do as much as I expected. ....   | 1 | 2 | 3 | 4 | 5 |

Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1	2	3	4	5

17. It takes a long time and it is very hard for my child to get used to new things. .	1	2	3	4	5
18. I expected to have closer and warmer feeling for my child than I do and this bothers me.....	1	2	3	4	5
19. Sometimes my child does things that bother me just to be mean. ....	1	2	3	4	5
20. My child seems to cry or fuss more often than most children. ....	1	2	3	4	5
21. My child generally wakes up in a bad mood. ....	1	2	3	4	5
22. I feel that my child is very moody and easily upset. ....	1	2	3	4	5
23. My child does a few things which bother me a great deal. ....	1	2	3	4	5
24. My child reacts very strongly when something happens that my child doesn't like.....	1	2	3	4	5
25. My child gets upset easily over the smallest thing. ....	1	2	3	4	5
26. My child's sleeping or eating schedule was much harder to establish than I Expected. ....	1	2	3	4	5
27. There are some things my child does that really bother me a lot .....	1	2	3	4	5
28. My child turned out to be more of a problem than I had expected. ....	1	2	3	4	5
29. My child makes me more demands on me than most children. ....	1	2	3	4	5

## **APPENDIX D**

### **MEASUREMENT OF MATERNAL DEPRESSION**



## GENERAL FEELINGS ABOUT YOUR LIFE

Below is a list of the ways you might have felt about your life, in general. Please circle the number for each statement which best describes how often you felt or behaves this way - **DURING THE PAST WEEK.**

Rarely or None of the Time (Less Than 1 Day)	Some or a Little of the Time (1-2 Days)	Occasionally or a Moderate Amount of Time (3-4 Days)	Most or All of the Time (5-7 Days)
0	1	2	3

### DURING THE PAST WEEK:

- |  |   |   |   |   |
|--|---|---|---|---|
| 1. I was bothered by things that usually don't bother me. ....                               | 0 | 1 | 2 | 3 |
| 2. I did not feel like eating; my appetite was poor. ....                                    | 0 | 1 | 2 | 3 |
| 3. I felt that I could not shake off the blues even with help from my family or friends. ... | 0 | 1 | 2 | 3 |
| 4. I felt that I was just as good as other people. ....                                      | 0 | 1 | 2 | 3 |
| 5. I had trouble keeping my mind on what I was doing. ....                                   | 0 | 1 | 2 | 3 |
| 6. I felt depressed. ....  | 0 | 1 | 2 | 3 |
| 7. I felt that everything I did was an effort. ....  | 0 | 1 | 2 | 3 |
| 8. I felt hopeful about the future. ....   | 0 | 1 | 2 | 3 |
| 9. I thought my life had been a failure. ....  | 0 | 1 | 2 | 3 |
| 10. I felt fearful. ....   | 0 | 1 | 2 | 3 |
| 11. My sleep was restless. ....  | 0 | 1 | 2 | 3 |
| 12. I was happy. ....  | 0 | 1 | 2 | 3 |
| 13. I talked less than usual. ....   | 0 | 1 | 2 | 3 |
| 14. I felt lonely. ....  | 0 | 1 | 2 | 3 |
| 15. People were unfriendly. ....   | 0 | 1 | 2 | 3 |
| 16. I enjoyed life. ....   | 0 | 1 | 2 | 3 |

17. I had crying spells. ....	0	1	2	3
18. I felt sad. ....	0	1	2	3
19. I felt that people disliked me. ....	0	1	2	3
20. I could not get "going". ....	0	1	2	3

## **APPENDIX E**

### **MEASUREMENT OF PARENTING SELF-EFFICACY**

## BELIEFS ABOUT MY PARENTING

The role of a parent is complex and difficult. Parenting involves a number of tasks and demands. One parent may think that they are doing really well at one thing while another parent feels better about something else. Most mothers probably feel that there is at least one thing they could improve. For the questions below we would like you to indicate how confident you feel about various parenting tasks. For each item, please circle the number from 1 (never) to 4 (always) that best shows how often the statement is true for you.

NEVER	SOME OF THE TIME	MOST OF THE TIME	ALWAYS
1	2	3	4

- |  |   |   |   |   |
|--|---|---|---|---|
| 1. I cope well with the stresses and frustrations of parenthood. ....                | 1 | 2 | 3 | 4 |
| 2. I am able to teach my child the things that will help him/her in life. ....       | 1 | 2 | 3 | 4 |
| 3. I am NOT very good at communicating my feelings to my child. ....                 | 1 | 2 | 3 | 4 |
| 4. I give my child the right amount of freedom to make her/his own decisions. ....   | 1 | 2 | 3 | 4 |
| 5. I am good at showing my children that I love them.....                            | 1 | 2 | 3 | 4 |
| 6. I am good at giving instructions to my child. ....                                | 1 | 2 | 3 | 4 |
| 7. I feel I do NOT know enough about children and child development. ....            | 1 | 2 | 3 | 4 |
| 8. I feel that I have the right amount of control over my child's behavior. ....     | 1 | 2 | 3 | 4 |
| 9. I know I am doing a good job as a parent. ....                                    | 1 | 2 | 3 | 4 |
| 10. I worry that I do NOT have all of the skills necessary to be a good parent. .... | 1 | 2 | 3 | 4 |
| 11. I am confident in my ability as a parent. ....                                   | 1 | 2 | 3 | 4 |
| 12. I can understand my child better than anyone else. ....                          | 1 | 2 | 3 | 4 |
| 13. I can handle the tasks of parenting. ....  | 1 | 2 | 3 | 4 |
| 14. I know how to set the right limits on my child's behavior. ....                  | 1 | 2 | 3 | 4 |
| 15. I am good at comforting my child when he/she needs it. ....                      | 1 | 2 | 3 | 4 |
| 16. I am NOT very good at showing affection for my child. ....                       | 1 | 2 | 3 | 4 |

NEVER	SOME OF THE TIME	MOST OF THE TIME	ALWAYS
1	2	3	4

17. I CANNOT handle the stresses and frustrations of being a parent. ....	1	2	3	4
18. I am consistent in the way I discipline my child. ....	1	2	3	4
19. I feel UNSURE of my ability to teach my child well. ....	1	2	3	4
20. I am able to let my child know that she/he can always come to me. ....	1	2	3	4
21. I am good at solving the every day problems of being a parent. ....	1	2	3	4
22. I feel I am NOT very good at showing my children that I love them. ....	1	2	3	4
23. I am good at listening to what my child has to say. ....	1	2	3	4
24. I feel sure that I am proving the best care arrangement that is possible for my child. ....	1	2	3	4
25. I feel I am providing my child with most of her/his basic needs. ....	1	2	3	4
26. I am good at communicating my feelings to my child. ....	1	2	3	4
27. I feel I am doing a good job at teaching my child values. ....	1	2	3	4
28. I feel like I know how to discipline my child. ....	1	2	3	4
29. I am able to resolve most any problem between my child and me. ....	1	2	3	4
30. I am good at looking at things from my child's point of view. ....	1	2	3	4
31. I do NOT know how to set appropriate limits on my child's behavior. ....	1	2	3	4
32. I know how to talk to my child about things that are upsetting him/her. ....	1	2	3	4
33. I think I know quite a bit about children and child development. ....	1	2	3	4
34. I use discipline and punishment effectively with my child. ....	1	2	3	4

## **APPENDIX F**

### **MEASUREMENT OF SOCIAL SUPPORT**

## SOCIAL SUPPORT

**Instructions:** For each of the categories of persons listed below, rate the amount of support that is available to you from 1 (None At All) to 5 (A Great Deal). Please rate the amount of support in both Columns A and B. Under A, rate the amount of available EMOTIONAL SUPPORT (such as acceptance of you, advice for how to stay sober, freedom to talk openly about your problems, ability to confide in); under B, rate the amount of available PRACTICAL SUPPORT (such as help with finances, transportation to meetings, baby-sitting, technical information, access to unfamiliar resources that can help in your recovery). In other words, make two ratings for each category of person. For each circle one number between 1 and 5, or NA if the rating is not applicable for you. Refer to this scale.

None At All	A Little	A Fair Amount	Quite A Bit	A Great Deal
1	2	3	4	5

Person (s)	A						B					
	EMOTIONAL SUPPORT						PRACTICAL SUPPORT					
Spouse/Partner	1	2	3	4	5	NA	1	2	3	4	5	NA
Parents	1	2	3	4	5	NA	1	2	3	4	5	NA
Children	1	2	3	4	5	NA	1	2	3	4	5	NA
Relatives	1	2	3	4	5	NA	1	2	3	4	5	NA
Friends	1	2	3	4	5	NA	1	2	3	4	5	NA
Neighbors	1	2	3	4	5	NA	1	2	3	4	5	NA
Employer	1	2	3	4	5	NA	1	2	3	4	5	NA
Co-Workers	1	2	3	4	5	NA	1	2	3	4	5	NA
Clergyman	1	2	3	4	5	NA	1	2	3	4	5	NA
People at my church	1	2	3	4	5	NA	1	2	3	4	5	NA
Therapist/Counselor/Case-Manager	1	2	3	4	5	NA	1	2	3	4	5	NA

## **APPENDIX G**

### **MEASUREMENT OF DEMOGRAPHIC INFORMATION**



## General Background

Instructions: Your responses to the following questions will help me understand the characteristics of the people responding to this survey. Please place an (X) on the line that best describes you or fill in the blank spaces, when necessary.

1. **Your age:** \_\_\_\_\_ years

2. **Your marital status:**

1) \_\_\_\_\_ Never-married

2) \_\_\_\_\_ Married

3) \_\_\_\_\_ Separated

4) \_\_\_\_\_ Divorced

5) \_\_\_\_\_ Widowed

6) \_\_\_\_\_ Significant other/Partner

3. **What is the highest level of education you have completed:**

1) \_\_\_\_\_ Some high school

2) \_\_\_\_\_ High school graduate

3) \_\_\_\_\_ Some college (at least 1 year) or specialized training

4) \_\_\_\_\_ Standard college or university graduate

5) \_\_\_\_\_ Graduate professional degree (Master's, Doctorate)

4. **Are you presently employed?**

1) \_\_\_\_\_ Yes, part time

2) \_\_\_\_\_ Yes, full time

3) \_\_\_\_\_ No

5. **If employed, your present employment status: Select the one response which best describes your employment status**

1) \_\_\_\_\_ Professional

2) \_\_\_\_\_ Manager/Administrator

3) \_\_\_\_\_ Sales

4) \_\_\_\_\_ Clerical/Service

5) \_\_\_\_\_ Skilled labor

6) \_\_\_\_\_ Unskilled labor

7) \_\_\_\_\_ Housewife

8) \_\_\_\_\_ Student

9) \_\_\_\_\_ Other(Please

specify) \_\_\_\_\_

6. **What is the highest level of education your spouse has completed:**

1) \_\_\_\_\_ Some high school

2) \_\_\_\_\_ High school graduate

3) \_\_\_\_\_ Some college (at least 1 year) or specialized training

4) \_\_\_\_\_ Standard college or university graduate

5) \_\_\_\_\_ Graduate professional degree (Master's, Doctorate)

**7. Spouse's present employment status: select the one response which best describes your employment status**

- |                             |                                  |
|-----------------------------|----------------------------------|
| 1)___ Professional          | 5)___ Skilled labor              |
| 2)___ Manager/Administrator | 6)___ Unskilled labor            |
| 3)___ Sales                 | 7)___ Student                    |
| 4)___ Clerical/Service      | 8)___ Other(Please specify)_____ |

**8. How many people live in your household on a daily basis ? (*write number on each age group*)**

- |                                    |                                  |
|------------------------------------|----------------------------------|
| 1)___ Children (under 5 years old) | 4)___ Adult (20-64 years old)    |
| 2)___ Children (6-12 years old)    | 5)___ Senior (65 years or older) |
| 3)___ Teenager (13-19 years old)   |                                  |

**9. What is the total annual income of your family from all sources (including employment, child support, public support, social security, children's earnings, alimony, disability income, support from family or friends)**

- |                            |                            |
|----------------------------|----------------------------|
| 1)___ Under \$16,092       | 4)___ \$30,001 to \$40,000 |
| 2)___ \$16,093 to \$23,460 | 5)___ \$40,001 to \$50,000 |
| 3)___ \$23,461 to \$30,000 | 6)___ More than \$50,001   |

**10. What in-kind benefits do you receive now?**

- |                    |                       |
|--------------------|-----------------------|
| 1) Cash assistance | 2) Child care subsidy |
| (1)___ yes         | (1)___ yes            |
| (2)___ no          | (2)___ no             |
| 3) other?          |                       |
| (1)___ yes,        |                       |
| specify_____       |                       |
| (2)___ no          |                       |

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